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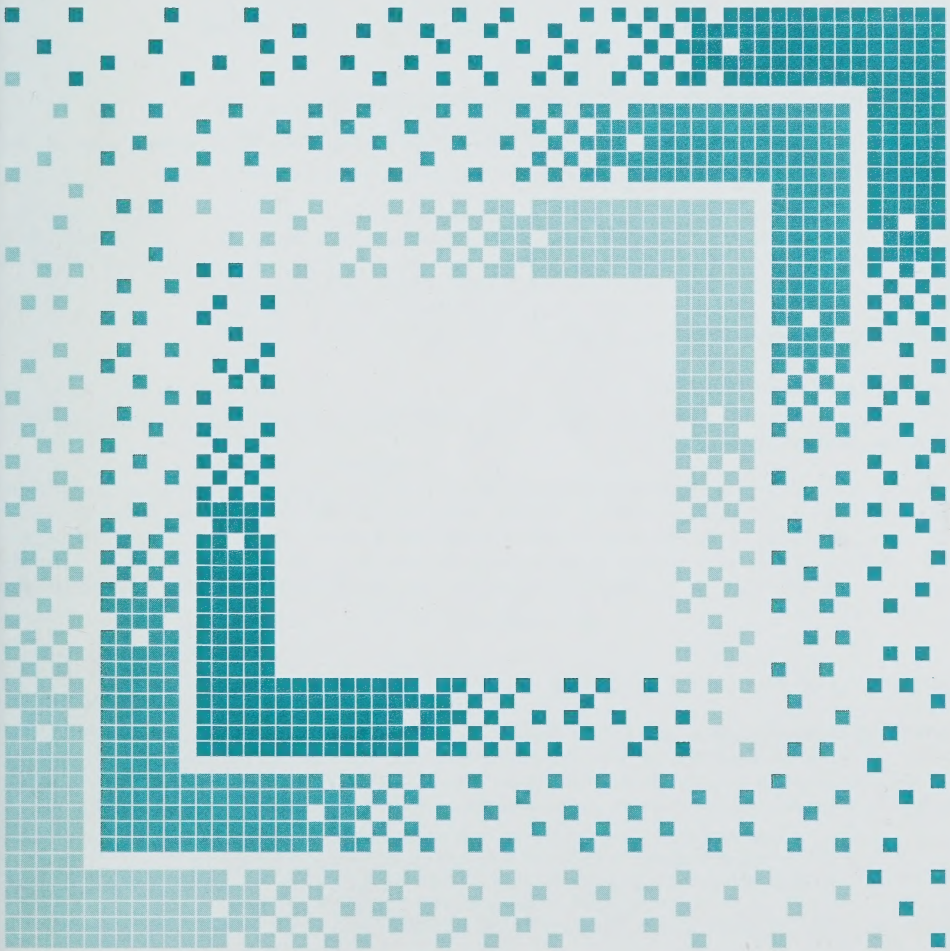
Parent-Child Exchanges of Supports and Intergenerational Equity

by Leroy O. Stone, Ph.D., F.R.S.A.
Carolyn J. Rosenthal, Ph.D. and
Ingrid Arnet Connidis, Ph.D.



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by Leroy O. Stone, Ph.D., F.R.S.A., Analytical Studies Branch, Statistics Canada
Carolyn J. Rosenthal, Ph.D., Office of Gerontological Studies, McMaster University
Ingrid Arnet Connidis, Ph.D., Interdisciplinary Group on Aging, University of Western Ontario

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Preface

In a recent review of needed improvements in social statistics systems, Fellegi and Wolfson (1997) suggest that there are increasing demands for evidence-based decision making. They argue that a system of social statistics that responds usefully to these demands must have the ability to "shed light on causal relationships". They add that "statistical information can facilitate the search for effective policies if it can point the way to those policies and interventions having a high probability of leading to long term improvement, for example of incomes."

Shedding light on causal relationships concerning human behaviour requires attention to paradigms and the analysis of concepts. Paradigms are lenses that cause us to regard some features of experience as irrelevant *a priori* to the explanation of a particular outcome, as we illustrate in Chapter 5. Concepts serve to orient our observations of processes so that we disregard some features of the processes and focus upon others. Our discussions below of the concept of *intergenerational equity* provide illustrations of this idea.

Re-engineering statistical systems so that they do a better job of shedding light on causal relationships requires that statisticians seek to identify the relevant paradigms and to analyze concepts. In addition to presenting the more customary display and interpretation of statistical series, the book engages in the search to identify paradigms and analyse concepts.

The stimulus for our search for paradigms and for this analysis of concepts is the Statistics Canada and Human Resources Development Canada conference on intergenerational equity, held in February 1997. There are several ways in which that conference has stimulated the production of this book.

First, as the initial volume of proceedings shows (see Corak 1998), the conference discussions were long on aspects of intergenerational accounting. In addition, there were many presentations of statistical analyses of related subjects or of the economic statuses of selected

groups such as young people. The discussions were, however, short on identifying and clarifying paradigms and on analyzing concepts pertaining to *intergenerational equity issues*.

This book directly addresses the links of statistical information to intergenerational equity issues. These issues have gained in their perceived salience for Canada because they are thought to be linked to important questions about the improvement of social cohesion in Canadian society. Our book deals with this link. We argue that there is a failure to see the full breadth of the foundations of social cohesion unless the currently predominant paradigm concerning intergenerational accounting is changed.

There is another way in which the conference has stimulated this book. While selecting the topic for our contribution to the conference proceedings, we studied the literature on intergenerational equity and intergenerational accounting. That study lead us to the conclusion that private intergenerational exchanges of support need more attention in the discussions of intergenerational equity. This book places its primary focus upon the implications of introducing private intergenerational exchanges of support into the measurement of the achievement of intergenerational equity, and hence into the debates concerning intergenerational equity. Some of our central conclusions are echoed in Osberg 1998 and Helliwell 1998, who also presented their ideas at the conference.

Acknowledgments

Several persons have made important contributions to the production of this book. Before turning those who acted in supporting roles, I would like to limit the responsibility of my co-authors for errors and poor judgments in what you will read below.

An extensive exchange of texts among us preceded the production of our presentation to the conference cited above. By the time we finished the conference paper, it was clear that each of us had contributed major elements of the arguments presented, and elaborated further in this book.

At least in the extensive theoretical discussions and the linkages made to social policy issues, we had achieved a genuine joint product. That remains true of this book. However, the book contains many presentations and interpretations of statistical series. This aspect of the book involves a variety of statistical judgments for which I must take the primary responsibility and all the blame for any errors found in the book.

We owe special thanks to Betty Havens, John Hirdes and Barry Wellman, who were our primary reviewers. John and Barry reviewed major sections of an earlier draft, which we revised in the light of their comments. Betty has provided detailed critiques of both the earlier text and the latest draft. Others who made helpful comments on the conference paper include Rod Beaujot, Ellen Gee, Ron Hirshorn and Michael McCracken.

We obtained immensely valuable supporting work from John Coffey, Sandra Girouard, Sophie-Isabelle Lesage, Bonnie O'Neil-Small, Catherine Pelletier, Sharron Smith, Michel St. Arneault, Jean Randhawa and Valerie Thibault. We are especially thankful to Bonnie for knowledgeable literature searches and for inputs to sections of the text, to Sharron for the work in graphic design, and to Catherine for expert French style editing.

While the persons cited above made many inputs to this book, we often elected to decline to accept various pieces of advice received. None of these persons can be held responsible for errors or opinions found below. No organization's policy positions were meant to be reflected in our discussions, all of which represent personal opinions.

Leroy O. Stone
February 1998

How can these results be reconciled with the perception of intergenerational conflict that has pervaded journalistic, political, and even academic circles? Not only do the relative positions of younger and older people not appear to be self-interested: we also found a high degree of consensus on most items ... One possibility is that a gap has developed between the activities of interest groups and the values of their constituencies.

John R. Logan and Glenna D. Spitze,
"Self-Interest and Altruism in Intergenerational Relations",
Demography, 32 (3) August 1995, p. 363.

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Highlights

- The analysis presented here is organized around the following general question. What are the consequences of including, within the scope of the measurement of equity, the flows of supports that take place not only through government programs but also by means of a variety of private arrangements?

- This general question is elaborated into a series of subsidiary questions. What are the dominant definitions of "equity" in the major current debates concerning intergenerational equity? When we study exchanges of supports within families, how strong are the indications that parents and children follow definitions of "intergenerational equity" that are similar to the dominant ones found in the major debates? When we study intra-familial exchanges of supports in Canada, how strong are the indications that a parental generation receives more from the corresponding child generation (their offspring) over the life courses of these generations than they give to latter generations? What are the indications that the actual levels of intergenerational exchanges of supports are responsive to variables that are not pertinent to the assessment of fairness in those exchanges?

- The final chapter discusses some implications of the findings for social policy issues. It focuses upon selected aspects of intergenerational equity and social cohesion. Interest in intergenerational equity is motivated partly by the fear that perceived intergenerational inequities threaten social cohesion.

- We could markedly affect the conclusions that analysts reach concerning intergenerational equity by introducing familial exchanges of supports into the computations made to assess the achievement of intergenerational equity. This result has notable consequences for public policies.

- The main patterns of parent-child exchange suggest the relevance of the concept of *fairness based upon need*. (The GSS data are used

to present some pertinent patterns below.) The rate of measured support received from children rises with increasing age of the parent. The percentage of parents who reported receiving help from non-coresident children, on any of the six kinds of help measured, rises from below 5% at age 25-44 to 36% at age 75+. For Medium or higher levels of help, the corresponding figures are 8% of persons aged 45-54 and 28% for persons aged 75 and over. The rate of help received rises most sharply as the parents approach advanced age. This acceleration in the rate of help, at the advanced ages, reflects that parents' rising need for assistance related to losses in functional capacity.

- In every age group, women have a higher rate of receiving measured help from their children than do men. The gap is especially great in the oldest age group. Compared to older men, older women tend to have a higher prevalence of several non-fatal chronic conditions that affect daily functional capacity. The gender difference cited above also reflects, in part, the higher rates of widowhood among women at the older ages.

- Generally, the higher the educational level of the parents, the lower the percentage of parents who received help. Among all persons aged 25 or more, the percentage receiving any help is roughly twice as high for persons who did not graduate from secondary school as for those with a university degree, 23% versus 10%.

- Education is, to some extent, a proxy for socio-economic status (SES). It is likely that people in lower SES groups have health-status declines at an earlier age than those in other groups. As a result, we would expect older parents in the lowest educational group to require more help at each age than those with higher levels of education. People with higher education also have better resources to purchase help and may, thus, avoid having to receive help from children. This suggests the hypothesis that the response of adult children to parents' functional losses might be mediated by the children's perceptions of the parents' ability to purchase help.

- The relevance of perceived need is suggested again, though indirectly, when we look at data concerning help reportedly given by parents to non-coresident children. The rate rises from the age group 25-44 up to that aged 55-64, and then falls among the older age groups –31% for age group 25-44, 47% for age group 55-64 and 18% for age group 75 and over. In the 55-64 age group 52% of mothers and 42% of fathers reported providing some measured help to non-coresident children. These are parental ages when the children are most likely to be adults engaged in bringing up their own young families.

- The flow of supports from non-coresident children to parents begins to reach substantial levels when the parents are in the early senior years, and the children are close to or have gone beyond age 40. However, excepting a small minority of the children, the intensity and scale of caring does not match what they received from their parents when they were very young. Also, while the children's help to non-coresident parents starts its climb during the middle ages of the children, the parental help to children remains substantial.

- For a very short portion of the parental life course, a minority of parents receives from their children the kind of 'intensive care' that most parents provide to their children while the children are maturing toward young adulthood. For the remainder of the parental life course, substantial levels of help are received from children; but on a scale far below that provided by the parents while the children were being reared into adulthood.

- The network of data patterns suggests the following hypothesis concerning the balance of private intergenerational support in a life-course perspective. Over the life course, private exchange of supports between parents and children is not balanced. It heavily favours the children.

- Even after we statistically hold constant the indicators for other relevant factors, the composition of the social network, cultural background and education make a significant difference in the level

of intergenerational flows of support. This result suggests the hypothesis that once private exchanges are included in the scope of measurement of attainment of intergenerational equity, the relevant volume of supports exchanged by two adjacent generations might become a function of distributional factors that could be altered markedly as we follow a series of generations over time. If those distributions are not stable from one generation to another, over a series of generations, generational accounting designed to support discussions concerning intergenerational equity needs to find a basis for breaking down the private flows of support in order isolate the portion that is relevant to issues about equity.

- Once we open the scope of debate over intergenerational equity issues to include private exchanges of supports between generations, the simple and almost uniform definition of "equity" that one can see in the academic and policy analysis literature may be no longer dominant across the whole population. The importance of this observation is enhanced when we consider that, over the life course of a generation, the amount/value of private (familial) exchanges of supports between generations may rival or exceed the government-sponsored ones.

- An important theoretical proposition arises from the synthesis of the findings. The prolonged building up of obligations over a lifetime of familial exchanges is a reflection of sustained dependency upon others for help. If social cohesion is strongly supported by the bonding and psychic rewards that come from discharging those obligations, then the build-up of obligations for reciprocal giving based on dependency is a foundation of social cohesion. Unless we are careful to view these processes from a life-course perspective, there is tendency to incorrectly perceive that they create intergenerational inequities that social policy needs to try to reduce.

Chapter 1 – Introduction

1.1. General Purpose

To date, most of the debates regarding intergenerational equity have focused upon the support provided by one generation to another through programs run by organizations, primarily government income transfers. At the heart of these debates is the assumption or the explicit claim that there is intergenerational inequity in government transfers, and that the unfair imbalance favours the old over the young (see Kotlikoff 1992, Good 1995, Thomson 1989, Longman 1987). There are two dominant propositions in these debates.

The first is the proposition that the younger generations are going to get inadequate returns on their investment in government support programs that benefit primarily the elderly. This investment consists of the aggregate taxes they paid during the working lives of the members of a generation. Their returns are the benefits that they will receive when they become seniors. The notion of unfairness arises because the value of the benefits they will receive, for each dollar of taxes they will have paid, will be substantially less than the corresponding value obtained by the current elderly population. (For basic expositions of this line of thinking see Kotlikoff 1992 and Good 1995. For critical commentary see Bengtson 1993a, Walker 1993, Helliwell 1998, Marshall 1997, and Osberg 1998.)

The proposition just cited has time horizons measured in terms of the lifetimes of generations. The second dominant proposition deals with a short time period, such as a year, and it assumes that the young and the old should be seen to be receiving 'fair shares' out of the pool of supports provided by governments within that time period. According to this proposition, in recent decades especially since the 1970s, the younger generations have not received their 'fair shares' out of the benefits provided by government programs. (For examples of this view see Thomson 1989, Longman 1985 and 1987. For critical discussion see Daniels 1989 and Marshall 1997.)

The analyses that have concluded that there is inequity or unfairness in the intergenerational flows of resources have made measurements, at least implicitly, of the magnitudes of intergenerational flows of supports. However, the measurements have considered only those supports that take place through government programs. *What are the consequences of including, within the scope of the measurement of equity, the flows of supports that take place not only through government programs but also by means of a variety of private arrangements?* This general question is the focus of the analysis presented below.

In developing this analysis, we have tried hard to distinguish between policy analysis and critique on one hand, and scientific analysis on the other hand. Take note that the allegation that the intergenerational flows of supports are inequitable requires a definition of "intergenerational equity", followed by the measurements cited above.

The adoption of a specific definition of "intergenerational equity" is a policy issue. However, the issue about which interest groups' positions are being supported in the adopted definition is not a policy issue. It is a matter of scientific analysis. Once a definition of "intergenerational equity" has been adopted as a matter of policy, the observation and measurement that may bring one to the conclusion that the intergenerational flows of supports are (or are not) equitable involve a set of scientific issues. The conduct and reporting of such *scientific* analyses are the *modus operandi* of this book.

In pursuing the consequences of including private exchanges of supports within the scope of the implicit measurement of intergenerational equity, we will limit the discussion to the domain of supports. This domain includes the body of literature that covers topics such as access to work opportunities which convey income and other important benefits, the contributions made by families toward making productive citizens out of newborn babies, pensions, health care, long-term care, and old-age income security.

An attempt to cover even the main dimensions of such a broad domain is impractical. In order to write a short book, we need to confine our attention to a small but important part of that domain. The analysis

offered below will deal with intra-familial, specifically parent-child, flows of supports. Our work is based upon data provided by Statistics Canada's General Social Survey (GSS). Although parent-child flows of supports are only a corner of the broad domain cited above, there is scarcely a Canadian family that has reared children, or is now doing so, for whom this is not a subject of vital importance. For those engaged in debating public policy issues, this subject is no less important. As McDaniel states, "Intergenerational transfers are the essence of societal reproduction . . . Without [them] societies would cease to exist." (McDaniel 1997, p. 2). Her use of the word "transfers" does not limit its scope to government income supports or other public sector programs.

Unfortunately, a major relevant topic cannot be explored using the GSS, or any other available Canadian data source for that matter. That topic is private wealth transfers from one generation to another. Here the phrase "wealth transfer" refers to the usage within the context of the market economy. Examples include gifts of money and marketable goods. Also important are wealth transfers in a broader sense, such as transfers of knowledge that take place partly through the formal educational system and partly through informal channels (cf. McDaniel 1997 and Helliwell 1998).

The remainder of this chapter will set forth a series of major questions. These questions are subsidiary to the general question cited above. The text that follows will also show how the remaining chapters are organized to respond to the subsidiary questions. The end of the chapter will contain commentary concerning three key terms used throughout this book – "generation", "family" and "equity". Before proceeding to these matters, however, let us explain why an extended discussion about the general question is worthwhile.

1.2. The Importance of Discussing Implications of Familial Intergenerational Exchanges

Some analysts might argue that private flows of support do not form a suitable basis for public concern. They should be excluded, it would be claimed, from any consideration of equity when analyzing the receipt

of benefits of government programs. Public programs should strive for intergenerational equity despite what is happening in the sphere of private relations. According to this argument, private exchanges of support between generations may be important and interesting to study; but they have little to do with the need to measure equity within the flow of benefits from government programs.

Why is it so important to consider the implications of including private transfers in debates concerning the achievement of intergenerational equity in Canada? Why does this matter deserve a whole book? We can offer a suitable, though hardly complete, answer to this question by returning to the topic of private wealth transfers.

In any given year, or alternatively during the life course of a cohort, there have been large private transfers of wealth from older to younger generations. In the United States of America (one lacks Canadian data here – Economic Council of Canada 1989, pp. 45-46), this volume is equivalent to a substantial proportion of the public transfers (that is, those mediated by government) from 'workers' to seniors. Here, we mean those seniors who live primarily on work-related pensions and on income transfers. At the same time, private transfers of wealth from 'workers' to these seniors comprise a tiny fraction of the private transfers of wealth from older generations to younger ones. Therefore, the results of measuring the intergenerational flows of supports, while using only the public programs, can differ sharply from those obtained when one also considers the private transfers of wealth between generations.

We know little about the volume of private wealth transfers between generations. As a result, it is unclear whether their aggregate volume is as large as that which was claimed above. We agree with the following remark made by McDaniel: ". . . adequate data are very scarce indeed on [intergenerational transfers], broadly conceptualized, and most studies that have been done remain inconclusive because of small samples, too narrow definitions . . . , or analytical problems . . . " (McDaniel 1997, p. 8).

We have not found Canadian data that deal with the volume of private wealth transfers between generations. There has been some assembly

of data for the United States, based on a large national sample. Canada and the United States are sufficiently similar (despite their differences, which are well known) that we can refer to the patterns shown in the American data.

MacDonald (1990) has analyzed detailed data concerning intergenerational transfers of wealth based on the 1987 U.S. National Survey of Family and Household. The survey sample contained nearly 13,000 persons, and it provided data that were representative for the country. There are close to 10,000 persons in the sub-sample for whom there are data concerning transfers of wealth between generations. Tables 2 and 6 in his paper provide the essential information, for our purposes. Table 2 shows the net balances of the value of gifts and loans donated and received for several age groups. Net reception is entirely concentrated at the younger ages. Net giving is entirely shown at the older ages.

Table 6 shows estimated per capita annual averages for (a) net receipts of private transfers from relatives, (b) public transfers by means of government programs, and (c) total income. The data refer to selected age groups. The net receipts from private transfers range from a high of $690 in the 30-44 age group to a low of $362 in the 60-and-over age group. Note well that $308 of this $362 figure consists of inheritances or of gifts from parents. The amount coming from children was at most $43, which is the figure shown for "other relatives" (there is no line for children in the table).

For the entire sample, $3,688,000 (rounded) were received as *private* transfers that were identifiable as coming from older generations. The sum of *public* transfers received by those aged 60 or more was $10,829,000. These figures give us a rare glimpse of the relative sizes of the pools of money involved in the public and private transfers, the former being limited to funds received by persons aged 60 or more.

These totals do not look at all like numbers for the whole population of the U.S.A., because the underlying totals for the population are the sample counts. (There is not enough information to allow the computation to be done with figures weighted suitably.) What is

important, for our purposes, is not the absolute value of just one of these numbers. Instead, it is the fact that the volume of private transfers from the older generations to younger ones is close to one-third of the public transfers estimated for persons aged 60 or more.

This is the picture for income transfers only. If we had included the monetary value of services provided informally by one generation to another we would increase markedly the relative size of the figure for flows that benefit the young.

Equally important, these are data for a recent year only. They ought to be data that cover the lifetimes of different generations. It is necessary to estimate the dollar value of marketable goods and services given by parents to children over the entire life course of the younger generation. This lifetime perspective would further enhance the relative size of the private intergenerational transfers.

Hence, from this very sketchy portrait using American data, we could markedly affect the conclusions that analysts reach concerning intergenerational equity by introducing familial exchanges of supports into the computations. On this issue, it is worth reviewing the remarks made by Victor Marshall (1997) based upon his review of other analyses of American data.

> "[W]hile the generational accounts show the old receiving more and contributing less than the young (partly because these are constructed in a manner as to ignore our undervalue contributions to youth such as through education), an examination of private, non-governmental exchanges shows the reverse situation: the old give more to the young than they receive from the young.
> [W]hen a broader conceptualization of transfers between age groups is considered, there is much less imbalance between contributions and benefits. By implication, as generational cohorts pass through the age groups of their society, there should be less of a difference in total exchanges of goods and services than would be measured solely by accounting public transfers." (Marshall 1997.)

In summary, even when we consider wealth transfers only in the sense of the transfer of readily marketable goods and services, it is an important issue about whether we should include private transfers in the implicit measurement of intergenerational flows of supports. This conclusion is reinforced by broadening the meaning of "wealth transfer" to include the transfer of capabilities and resources that are not readily marketable goods and services (for related discussion see Helliwell 1998). Thus, when we use the said measurement to support conclusions about intergenerational equity, this issue has notable consequences for public policies.

McDaniel (1997) offers an additional perspective from which private intergenerational transfers need to be brought into the debates over the achievement of intergenerational equity in Canada. She argues that the state already intervenes deliberately in the private decisions concerning intergenerational flows of supports. The intervention "ranges from outright coercion . . . [e.g.] the case of Canada placing a legal requirement on children to support their parents . . . through multiple ways in which the state influences how family help is provided . . . " (McDaniel 1997, p. 6).

1.3. Focus of Chapters Around Major Subsidiary Questions

We will now elaborate the general question stated in the opening section of this chapter into a series of subsidiary questions. These questions, which are printed in italics below, will become the primary concerns of the chapters that follow. A review of these subsidiary questions, with an indication of the pertinent book chapters, follows.

Participants in the private exchanges of intergenerational supports may, to a large degree, be using conceptions of the meaning of "intergenerational equity" that are inconsistent with the dominant ones in policy and academic circles. If this is so, the process of informing the public about flows of supports that affect intergenerational equity ought to embody the different sets of data that correspond to the different major conceptions of intergenerational equity. Consequently, the

conclusions that have emerged in the debates of recent years, where the dominant definitions have held sway, may stand transparently in need of major revision.

Chapter 2 will provide information related to this theme by addressing the following set of questions. *What are the dominant definitions of "equity" in the major current debates concerning intergenerational equity? When we study exchanges of supports within families, how strong are the indications that parents and children follow definitions of "intergenerational equity" that are similar to the dominant ones found in the major debates?* In addressing these questions, Chapter 2 will draw upon General Social Survey data. This chapter will examine whether the *pattern* of flows of supports between parents and children points to the use of conceptions of equity that are substantially at variance with the dominant definitions in policy and academic circles. Chapter 2 will also cite the results of related research findings published elsewhere.

As already noted, the leading propositions in the recent debates concerning intergenerational equity allege that flows of intergenerational support favour older over younger generations. Earlier in this chapter, we have already cited American data on private transfers of wealth that point to a need to re-examine those leading propositions.

Chapter 3 returns to the issue of the need to modify the leading propositions based upon the data about private exchanges of supports between generations. This chapter uses GSS data that pertain to services provided by parents to children and *vice versa*. This chapter takes up the following major question: *when we study intra-familial exchanges of supports in Canada, how strong are the indications that a parental generation receives more from the corresponding child generation (their offspring) over the life courses of these generations than they give to latter generation?* In addressing this question, the chapter will draw upon information provided by the GSS and cite findings from other studies.

An analyst cannot trace real cohort life courses with these data, and the data cover only part of the spectrum of relevant supports. Consequently,

the chain of reasoning will be necessarily indirect. Nevertheless, an effort will be made to identify a conclusion that seems reasonable in the light of the indirect evidence.

Leading protagonists in the debates concerning intergenerational equity seem to say that, given a reasonable amount of ingenuity and data, we can calculate what a specific generation pays in taxes to support various kinds of government 'welfare' programs. An analyst can treat this amount as an investment made in order to receive certain returns over the life course (see Kotlikoff 1992). These returns are benefits provided by government programs. On some basis, the analyst makes an assessment about what is a fair rate of return. The analyst would claim that generational inequity exists when some generations receive rates of return that are markedly above or below the fair rate of return. In effect, once we can evaluate what a generation has paid to support government 'welfare' programs, we can estimate what that generation should receive based on intergenerational equity. It remains only to measure the actual volumes of intergenerational supports exchanged to find out the extent to which intergenerational equity has been achieved.

Why is the process so simple? When the measurement of intergenerational flows of support is limited to government programs, the determinants of those flows are largely dominated by factors concerning the rules of eligibility for receipt of government benefits, the number of people who are eligible under those rules, and the ability of government to finance the implied volume of government expenditure. The ability to provide these benefits depends upon levels of taxation of income from private sources and upon the amount of debt the government can finance. The required levels of taxation and borrowing are, in turn, dependent upon the output of the market economy.

In addition, it is possible to estimate the volume of benefits that a given generation would receive, and the extent to which it would pay taxes that serve to support the benefits program. An analyst bases this estimation upon a small set of assumptions about the said eligibility

rules, the number of people that would satisfy the rules, the levels and incidence of the taxation used to finance the implied volume of government-supported benefits, and the adequacy of the underlying growth of the market economy. Using the fair rate of return cited above, we can also arrive at a conclusion about what a defined generation is 'owed' (in benefits) because of the lifetime taxes it has paid. Getting less than what is owed would then be considered a case of inequity.

There exists, however, a serious problem for any project that tries to measure the achievement of equity. When the private exchanges of supports are introduced into the measurement, the volume of intergenerational supports begins to be affected by a new variety of determinants. Some of these determinants have little bearing upon issues of fairness. Suppose that, consequently, it is not practical to identify the impacts of the set of determinants that are pertinent to the debate on fairness. Then, the introduction of private familial exchanges may make it practically impossible to measure the achievement of intergenerational equity.

What are the indications that the actual levels of intergenerational exchanges of supports are responsive to variables that are not pertinent to the assessment of fairness in those exchanges? Chapter 4 addresses this question. Again we will use the GSS data to display some aspects of the composition and distribution of population that affect the volume of supports flowing from one generation to another. Some pertinent aspects of these determinants of the level of intergenerational flows of support are infrequently considered in the current debates about intergenerational equity. When they are considered, their implications for the evaluation of what one generation is 'owed', because of what it 'paid' to other generations, are worthy of note. Chapter 4 will deal with some aspects of this matter.

Chapter 5 deals with some implications of the findings for social policy issues. It focuses upon selected aspects of intergenerational equity and social cohesion. Interest in intergenerational equity is motivated partly by the fear that perceived intergenerational inequities threaten social cohesion. The discussion is developed by reviewing some key questions

and findings of the previous chapters. The chapter identifies some implications and limitations of the findings. In the process, the text identifies some key information needed to supplement what is available in the General Social Survey.

1.4. About Definitions

Before proceeding to Chapter 2, the definitions of three key terms need to be considered. They are "generation", "family", and "equity". The next few paragraphs address the task of defining "generation", and indicate the particular definition that will be used in this book. A loose definition of "family" will be provided to guide the reader concerning usage in this book. As the reader may have noted, the definition of "equity" is central to the discussion in Chapter 2. A review of the definitions of "equity" will be made in Chapter 2.

1.4.1. "Generation"

Bengtson points out that the term "generation" is "frequently and casually employed in both mass media and scholarly writing" (Bengtson 1993a, pp. 3-4). This remark applies especially to discussions in the media. Some effort at being rigorous in using this term is evident among the major scholarly writings (e.g., Bengtson et al., 1985, Daniels 1989, and Bengtson 1993a). That effort is captured in the following list of five uses of the term "generation", based partly on Bengtson 1993a.

1. A generation is a birth cohort (example: persons born in 1929).
2. Generations are defined by kinship lineage descent (example: grandparent generation, parent generation, grandchild generation, the latter being the offspring of the members of the parent generation).
3. A generation is a set of yearly birth cohorts that have been 'marked' by distinctive historical experience (example: Baby Boom Generation).
4. A generation is an age category through which birth cohorts pass (for example, in every year we will find a seniors generation or a youth generation).

5. A generation consists of all people now alive, thus leading to talk about today's generation versus future generations (the unborn of future years – the context often indicating a reference to many decades into the future).

These are all legitimate usages of the term "generation", if a writer who uses this term takes time to help the reader to see which meaning is intended in the writer's work. For good efforts to keep the distinctions clear throughout a discussion, see Daniels 1989 and Bengtson 1993a.

We offer the following guidelines regarding usage of the term "generation" in this text. We adopt the convention, common in demography, that the word "cohort" refers to a group of people that have experienced a well-defined kind of event (e.g., birth or marriage) within a clearly marked period. This approach makes definitions 1 and 3 above similar, but with a major difference. Under definition 3, there must be an identified set of historical events that are thought to have exercised a formative influence upon the members of the set of cohorts that will be called a "generation". This approach can be seen in a great deal of sociological literature, and it has been traced back to the writings of the famous German sociologist Karl Mannheim. Our text will make no use of either definitions 1 or 3.

It is possible that, at a particular point, our text lends itself to the conclusion that definition 5 is being used; but it should be clear from the context that it is not the case. We intend to have no discussions about all the people alive today versus future unborn generations.

Little of the discussion in this text will be consistent with references to the seniors of *every* year as the "senior generation". Generally, we will avoid the notion that it is useful to treat an *age category* as equivalent to a generation. Therefore, there will be little use of definition 4 in this book.

In this book, unless we are quoting or paraphrasing the work of others, the term "generation" will be used in the sense of kinship lineage descent. What this means can be clarified by the following

considerations. Imagine a set of mothers defined at some point (or narrow period) of time. The offspring of those mothers will comprise a generation, for our discussion. In turn, the children borne by those offspring will be another generation. For this latter set of offspring, the imagined mothers will be grandparents. Thus, we focus on a *sequence of parentage*: children, grandchildren, great grandchildren, etc. All data shown below will conform to this definition of "generation".

1.4.2. "Family"

In this text, the word "family" refers to a set of individuals who can be linked or related in terms of either parentage, or marriage or adoption. This implies that we have in mind what anthropologists call the "extended family". Such a family goes well beyond husband, wife and children (or parent and child). The members of family, in this definition, do not have to live in the same dwelling. The General Social Survey strongly supports this notion of "family". It has done so since the first GSS, that of 1985.

1.4.3. "Equity"

As stated above, a major set of implications of measuring familial exchanges involves what families regard as equitable in the exchange of intergenerational supports. Many Canadian families may not support the notion of equity (for the purpose of discussing intergenerational equity) that focuses upon identifying a fair rate of return upon an investment made by means of taxes paid. This issue forms the theme for Chapter 2, where we will formally address the definition of "equity".

Chapter 2 – Divergent Conceptions Of What "Intergenerational Equity" Means

2.1. General Purpose

When most parents and children think about equity in helping each other, they may use definitions of "equity" that diverge markedly from the dominant ones in policy and academic circles. The need to adapt to this divergence could be a major consequence of including familial exchanges of supports when measuring the achievement of intergenerational equity. After the accommodation, it may be necessary to revise the conclusions that have emerged in the debates of recent years concerning intergenerational equity.

This chapter will explore the nature of the divergence just cited, by addressing the following set of questions. *What are the dominant definitions of "equity" in the major recent debates concerning intergenerational equity? When we study intra-familial exchanges of supports, how strong are the indications that parents and children follow definitions of "intergenerational equity" that are similar to the dominant ones found in the major debates?*

In order to address these questions, this chapter will make use of data from the 1990 General Social Survey (GSS). The analysis of these data will try to portray *patterns* of flows of supports between parents and children. The analysis will show whether the generations tend to use conceptions of equity that differ in essence from the dominant ones employed in policy and academic circles. The 1996 GSS also contains relevant data. However, we will search for broad patterns of intergenerational support that are unlikely to have shifted substantially over the short period of six years.[1] Appendix A presents technical information about the 1990 General Social Survey.

2.2. "Equity" – The Basic Academic Notion

The literature on the philosophy of ethics is a good source for information regarding the basic notions about the meaning of "equity".

The book entitled "Equity Theory", edited by David Messick and Karen Cook (1983), provides some key ideas based upon this literature. A review article, in that book, done by Joanne Martin and Alan Murray, is especially helpful for our purposes. They reiterate a pertinent idea in the celebrated work of Rawls (1971). The idea is that a concern about equity is a concern about fairness and justice. A person evaluates fairness by carrying out a "comparison process" that involves two or more sets of outcomes. In their words, "equity offers an analysis of how people come to find an existing system of reward allocation to be just . . ." (Martin and Murray 1983, pp. 169-170).

Consider two parties, A and B. Each makes inputs that help to sustain a defined process, and each receives certain benefits from that process. The central proposition of equity theory is that when

$$(\text{Benefits A}/\text{Inputs A}) = (\text{Benefits B}/\text{Inputs B})$$

then equity is said to have been achieved. The expression "(Benefits A/Inputs A)" means a defined relation between what party A received from the process and what party A contributed to help support the process. For equity to be achieved, that relation should be the same for both parties A and B. Martin and Murray offer this elaboration:

> "According to this formula, comparers decide which of their inputs, such as educational qualifications or years of seniority, entitle them to outcomes, such as money. The comparer [party A] then calculates the positive or negative value of each input, sums these up, and divides that sum into the sum of the outcomes received. A similar calculation is then performed concerning the inputs and outcomes of a comparative referent [party B]. If the two ratios are equal, the relationship is equitable." (Martin and Murray 1983, pp. 169-170.)

2.3. Alternate Views on the Nature of Intergenerational Equity in Policy Analysis and Academic Writing

In varying degrees, social theorists and public policy analysts who have written about intergenerational equity have invoked the basic notion cited above. Let us review briefly some expressions found in the literature.

The work of Laslett and Fishkin exemplifies what is perhaps the most general view on the subject of equity. They say that "[there is] an obligation on all present persons to conduct themselves in recognition of the rights of all future persons" (Laslett and Fishkin 1992). Daniels applies this idea to generations defined in terms of either birth cohorts or age groups. He states that intergenerational equity is concerned with "what is a fair distribution of social resources among different age groups [or] between birth cohorts . . . " (Daniels 1989, p. 57).

The work of the former Economic Council of Canada provides a more elaborate and relevant application concerning the notion of intergenerational equity:

> "The stock of wealth (including knowledge) that we, the current working-age population, pass on to our children [should] enable them, with a comparable effort, to enjoy a standard of living at least equivalent to our own. . . . Where the working population augments the nation's net wealth and expands future opportunities for market and non-market consumption, this generation would generally be seen to have fulfilled its obligations because its children are better off when all its activities, including the saving and dissaving undertaken over its life cycle, are considered" (Economic Council of Canada, 1989, p. 49).

Marshall, Cook, and Marshall 1993 neatly summarize the key idea in much of the literature about what is the essence of intergenerational equity. It is that ". . . different generations should be treated in similar ways and should have similar opportunities" (Marshall, Cook, and Marshall 1993, p. 119).

A content analysis of these and other relevant writings would reveal important differences of meaning that take one into quite different aspects of inquiry into intergenerational equity. As already noted in Chapter 1, the literature concerning government operations in the field of social support reveals two dominant views of what is the principal intergenerational equity problem. *One view is that members of different generations should receive from the government transfer payments that represent an equal rate of return on their contributions made to*

government. Taxes and pension plan premiums are the principal kinds of contributions. Thus, equity across generations really means *equality* of generations in terms of insuring an *equal rate of return on "investments"*. Thomson states this view clearly.

> "The generation now middle-aged is the 'welfare generation' . . . [and have made] . . . lifetime contributions to the programme of pooled resources . . . [that] have been small, and their claims much more considerable . . . those who follow are being asked as a generation to invest a great deal more than they will ever receive in return . . . "(Thomson 1989, p. 35).

For an application of this idea, see the work of Kotlikoff (1992).

The second dominant view is that in any given period, such as a year, the young and the old should receive 'fair shares' out of the pool of supports provided by governments (see, for example, McDaniel 1997, p. 9). Questions that reflect this approach include the following ones. What percentage of total transfer payments is going to the old and what percentage goes to the young? How does the current balance of transfer payments to the old and young compare with the balance between them in previous years?

Similarly, many studies of informal support tend to focus on exchanges between older parents and their adult children *at one point in time*, exaggerating what the old receive from the young. This bias is increased in many studies by their focus on the "primary care-giver", rather than on all children in a family. This focus on concurrent exchanges overlooks the deep awareness among family members of *lifetime expectations as a key context* within which they negotiate current exchanges (see Finch 1989).

2.4. Confrontation Between the Dominant Views and What Most Parents and Children May Believe Constitutes Equity Between Generations

When we extend the discussion of intergenerational equity to familial exchange, we need to reconsider the concept of equity. This reconsideration leads to a challenge to the first, at least, of the two

dominant views (cited above) concerning what is the intergenerational equity problem. The main patterns of parent-child exchange suggest the relevance of the concept of *fairness based upon need.* (The GSS data are used to present some pertinent patterns below.) We suggest the hypothesis that, in most families, perceived need is an integral aspect of evaluating what is a fair level of support flowing from a parent to a child, or *vice versa.*

The writings of two prominent social scientists, Leonard Cain and Amartya Sen, provide a rationale for this focus upon need. The analysis of their work also leads to notable hypotheses about foundations of social cohesion, a topic that will be discussed further in Chapter 5.

Cain (1987, pp. 281, 286, 291) puts forward the notion that the principle of equity should incorporate the concept of *need.* This means that the flows of benefits to two different groups can be unbalanced, even after taking their 'inputs' into account, and yet be equitable or fair. That imbalance can arise from changes in some aspect of the composition of population. Changes in need among generations arising from shifting economic conditions can also create the imbalance.

In his Third Dewey Lectures, published in the book entitled *Inequality Reconsidered*, Amartya Sen points out a "distinction between 'the agency aspect' and the 'well-being aspect' of a person . . . [A]gency success . . . would depend on the role [the person plays] in bringing about the achievement of [certain] objectives. . . . [A person may concentrate] on . . . success specifically as an agent. . . ." (Sen 1992, p. 58). Sen then goes on to explain how a person may pursue success as *agent of change* knowing that in the process the person's well-being is being *reduced.* (Sen 1992, pp. 58-63.)

A substantial body of research shows that private intergenerational exchanges are often not equitable, in the sense of the dominant definitions stated above, *and are generally not expected to be so among those engaged in the exchanges.* A key reason for this situation, it is thought, is the persistent tendency to rely upon perceived need in deciding what is fair. The pertinent research deals with the sense of

filial obligation, and with patterns of intergenerational exchanges in a life course perspective. (For related discussion, see Mancini and Blieszner 1989, Marshall, Rosenthal and Daciuk 1987, Bengtson 1993a, pp. 156-157, and Marshall 1997.)

In a review of policy issues regarding intergenerational relations, Cantor wrote as follows:

> "It is unlikely that any one . . . motivating factors . . . can explain all the variance in the nature and amount of assistance provided by children . . . [Some] researchers emphasize the importance of the nature and level of need . . . as major factors conditioning filial response . . . " (Cantor and Hirshorn 1989, p. 46).

The first major body of pertinent data for a sample that represents all the U.S.A. was that of the 1987 Survey of Family and Household. This survey provided details about giving and receiving of wealth among family members. In an in-depth analysis of the data, MacDonald (1990) found patterns that were strongly inconsistent with what we have called the "investment concept" of equity. This concept implies that intergenerational wealth transfers are explained largely by principles that lean almost entirely on the self-interested pursuit of adequate returns upon investments made. In a section of his work focussed entirely on persons less than 45 years old MacDonald states: "I find that parents are altruistic, but that they seem to follow the rule of equal sharing among their adult children."

MacDonald invokes the notion of altruistic motives while referring to a debate among economists concerning the degree to which familial exchanges of supports are explained by principles of self-interested exchange. One group attributes failures of the exchange principles to altruism. The group does not define altruism precisely. Instead, it merely introduces altruism into the economic theory. It does so by means of the proposition that the utility function of the *recipient* of the support enters the utility optimization process carried on by the giver of the support (see MacDonald 1990, and Logan and Spitze 1995). Whether the variable called "altruism" is something quite distinct from a pursuit of equity as fairness is an important theoretical issue, to which we will return in the final chapter of this book.

MacDonald found that children tended to receive wealth transfers equally, rather than at rates that varied according to need. His data set lacked information about what each child within one family actually received, however. That is not so for a more recent dataset analyzed in articles by McGarry and Schoeni (1995) and by Henretta et al. (1997).

The United States Asset and Health Dynamics Survey (AHEAD), which uses a panel of respondents who are followed over time, is unique in providing several items of information about each child within a family. McGarry and Schoeni (1995) find clear evidence of unequal transfers of parental wealth among the children. They conclude, after bi-variate preliminary analysis, that "it appears that parents are indeed giving greatest assistance to their least well-off children" (McGarry and Schoeni 1995, p. 5). Following more careful multivariate analysis they state: "We continue to find strong evidence [that] parents are more likely to give assistance to their children who are worse off financially relative to themselves" (McGarry and Schoeni 1995, p. 11).

Focusing on the receipt of care by parents, Henretta et al. (1997) cite several studies whose findings suggest the importance of perceived need in explaining the level of helping provided by children. They state that "Research on the characteristics of care recipients indicates that the probability of an adult child's involvement in care-giving increases with the parent's age, intensity of care needs, and marital status . . . Help from children is more likely among frail widowed elderly than among frail elderly with a living spouse." (Henretta et al. 1997, p. 112.)

2.5. Relevant General Social Survey Data on Help Received from and Given to Non-Coresident Children by their Parents[2]

2.5.1. Help received from children

Our General Social Survey provides data that are generally consistent with the pattern just cited. The data in Table 2.1 and Chart 2.1 are for help received by parents from children that do not reside with them.

Table 2.1. Percentage of Parents Receiving Any Instrumental Help[1] from Non-Coresident Children, by Sex and Age of Parents, Canada, 1990
(Private household population with a child living outside the home)

Age	Both sexes	Female	Male
	Any level of help		
25-44	3.1*	4.8*	1.7*
45-54	13.2	17.8	7.5*
55-64	19.0	23.1	14.6
65-74	26.3	32.4	18.5
75+	36.0	45.5	22.5
25+	*18.9*	*24.5*	*12.5*
	Low level of help		
25-44	0.6*	1.0*	0.2*
45-54	4.9	7.2*	2.1*
55-64	7.2	6.7*	7.8*
65-74	7.5	8.7	6.0*
75+	8.1	10.1*	5.3*
25+	*5.9*	*7.1*	*4.6*
	Medium or higher levels of help		
25-44	2.6*	3.8*	1.6*
45-54	8.3	10.6*	5.4*
55-64	11.7	16.3	6.8
65-74	18.8	23.6	12.5
75+	27.9	35.4	17.2
25+	*13.0*	*17.4*	*7.9*

* The estimated coefficient of variation exceeds 15%.

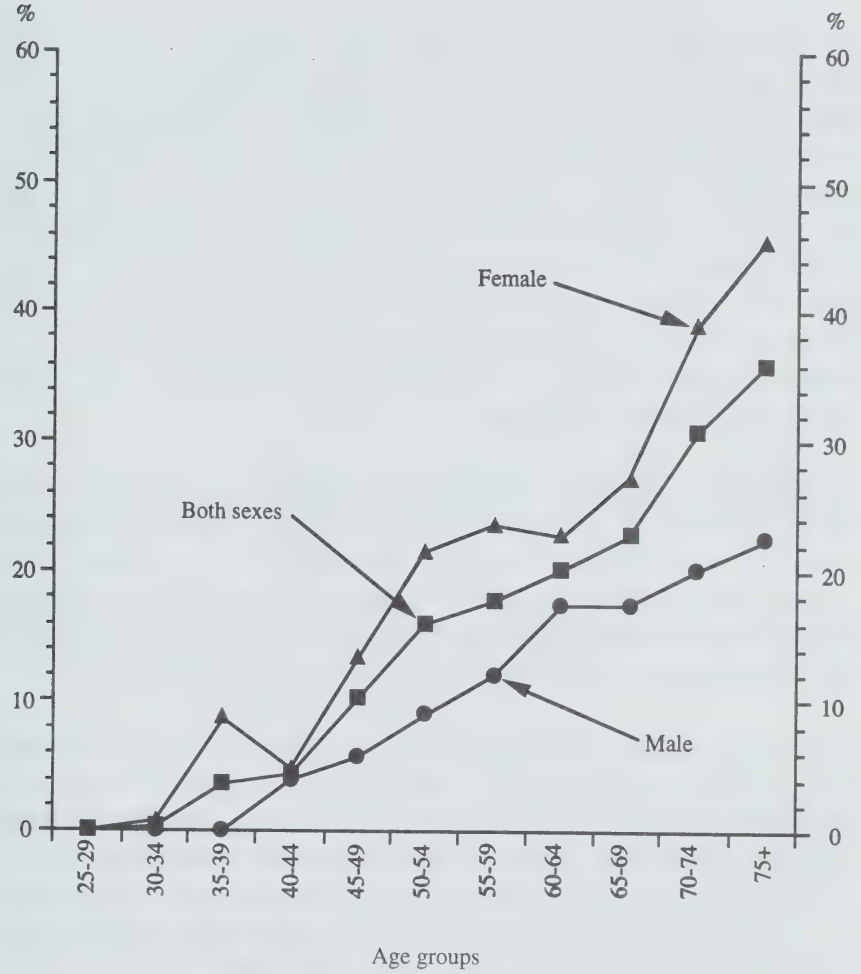
1 Six kinds of instrumental help measured: help with personal care, transportation, finances, meal preparation, laundry and cleaning, and house and yard maintenance.

Note: On all tables and charts child or children could mean one or more children. Parent could mean one or more parents.

Source: Statistics Canada, General Social Survey, 1990.

Chart 2.1. Percentage of Parents Receiving Any Instrumental Help[1] from Non-Coresident Children, by Sex and Age of Parents, Canada, 1990

(Private household population with a child living outside the home)



1 Six kinds of instrumental help measured: help with personal care, transportation, finances, meal preparation, laundry and cleaning, and house and yard maintenance.

Source: Statistics Canada, General Social Survey, 1990.

However, it should be noted that co-residence of parents and children falls to very low levels after the children are aged 25 or more (generally less than 10% of such children reside with a parent).[3]

Age and gender. Table 2.1 and Chart 2.1 show that the rate of measured support received from children rises with increasing age of the parent, starting at age 25.[4] The percentage of parents who reported receiving help from non-coresident children, on any of the six kinds of help measured, rises from a figure below 5% at age 25-44 to 36% at age 75+. The rate of help received rises most sharply as the parents approach advanced age. This acceleration in the rate of help, at the advanced ages, reflects that parents' rising need for assistance related to losses in functional capacity (Connidis 1989, p. 49). It is well known that at those age levels, there is an increased prevalence of chronic conditions and activity limitation (Chappell 1992, p. 32).

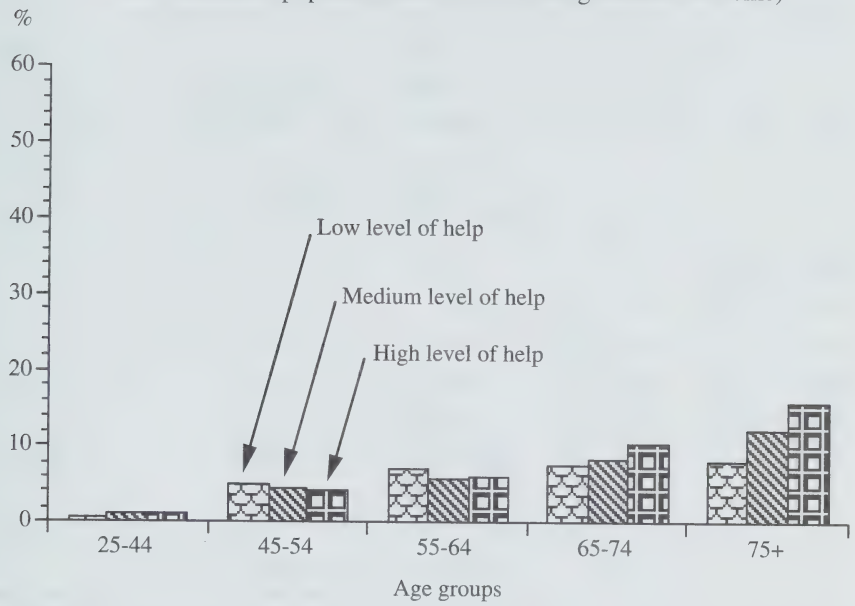
The percentage receiving each level of help (Low, Medium or High) also rises with age (Chart 2.2). For example, comparing the age categories of 45-54 and 75+, we see that nearly 5% of persons 45-54 receive Low help compared to 8% at age 75+. For Medium or higher levels of help, the corresponding figures are 8% of persons aged 45-54 and 28% for persons aged 75 and over (Table 2.1).

In every age group, women have a higher rate of receiving measured help from their children than do men. The gap is especially great in the oldest age group, where it is over 20 percentage points among those aged 75 or more. This is more than twice the size of the gap in the 45-54 age group (see Table 2.1). Compared to older men, older women tend to have a higher prevalence of several non-fatal chronic conditions that affect daily functional capacity (Chappell 1992, p. 8).

The gender difference cited above also reflects, in part, the higher rates of widowhood among women at the older ages. In the 45-54 age group, for example, "married" is the dominant marital status for both sexes. However, in the 75-and-over age group a major proportion of women are widowed, while the men are predominantly married. Thus, as is well known, men have a much greater opportunity to receive needed

Chart 2.2. Percentage of Parents Receiving Any Instrumental Help[1] from Non-Coresident Children, by Selected Levels[2] and Age of Parents, Canada, 1990

(Private household population with a child living outside the home)



1 Six kinds of instrumental help measured: help with personal care, transportation, finances, meal preparation, laundry and cleaning, and house and yard maintenance.

2 Levels of help are defined in Appendix B.

Source: Statistics Canada, General Social Survey, 1990.

help from spouses. The children tend to increase their support when the spouse is absent. *This is an indirect indication that the children's perception of need among their parents may be a crucial variable in the intergenerational flow of familial supports.*

Educational attainment. Substantial educational variations in help received from non-coresident children are shown in Table 2.2 and Chart 2.3. Generally, the higher the educational level of the parents, the lower is the percentage of parents who received help. Among all persons aged 25 or more, the percentage receiving any help is roughly twice as high for persons who did not graduate from secondary school as for those with a university degree, 23% versus 10%. Table 2.2 shows that

Table 2.2. Percentage of Parents Receiving Any Instrumental Help[1] from Non-Coresident Children, by Level of Education and Age of Parents, Canada, 1990

(Private household population with a child living outside the home)

Age	Canada	Less than secondary graduation	Secondary graduation	University degree or diploma
	Any level of help			
25-44	3.1*	4.5*	2.8*	[2]
45-54	13.2	14.3	14.5	[2]
55-64	19.0	22.8	15.5	[2]
65-74	26.3	29.0	24.2	[2]
75+	36.0	37.5	36.8	[2]
25+	*18.9*	*23.1*	*16.2*	*10.0*
	Medium or higher levels of help			
25-44	2.6*	4.1*	2.1*	[2]
45-54	8.3	9.1	8.7	[2]
55-64	11.7	15.5	7.7	[2]
65-74	18.8	22.3	14.8	[2]
75+	27.9	30.5	26.1	[2]
25+	*13.0*	*17.1*	*9.8*	*6.6*

* The estimated coefficient of variation exceeds 15%.

1 Six kinds of instrumental help measured: help with personal care, transportation, finances, meal preparation, laundry and cleaning, and house and yard maintenance.

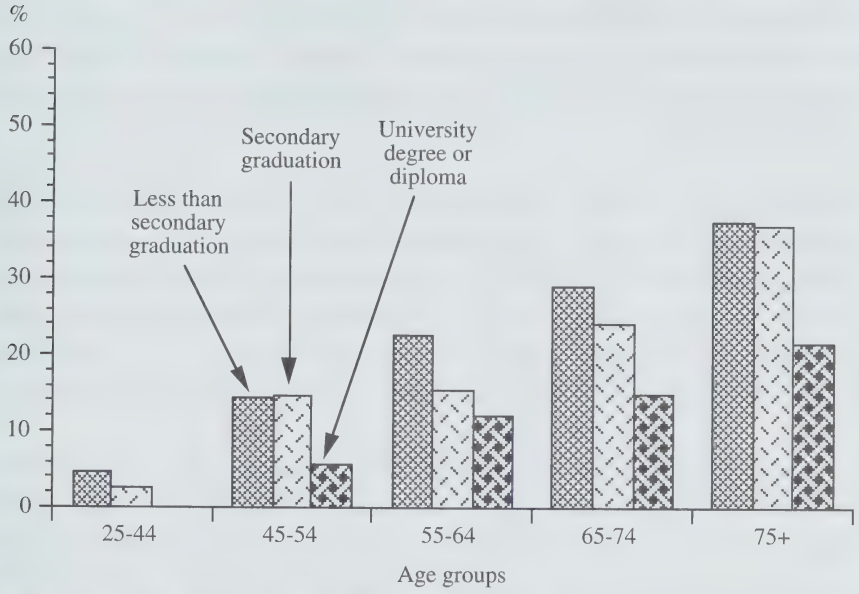
2 Sample too small.

Source: Statistics Canada, General Social Survey, 1990.

the lowest two educational categories with have similar rates in the oldest and youngest age groups. However, these two educational categories have rates distinctly above those of the university category in all age groups (the details are not shown in Table 2.2 due to small sample size). There is, on the whole, an inverse association between

Chart 2.3. Percentage of Parents Receiving Any Instrumental Help[1] from Non-Coresident Children, by Level of Education and Age of Parents, Canada, 1990

(Private household population with a child living outside the home)



1 Six kinds of instrumental help measured: help with personal care, transportation, finances, meal preparation, laundry and cleaning, and house and yard maintenance.

Source: Statistics Canada, General Social Survey, 1990.

level of help received from non-coresident children and education. The higher the educational level, the lower is the rate of help received by parents from their non-coresident children.

Education is, to some extent, a proxy for socio-economic status (SES). Therefore, it is likely that these results for education reflect the higher-than-average rate of health-status losses for persons in lower SES groups. People in lower SES groups have health-status declines at an earlier age than those in other groups (Wilkins and Adams 1987). As a result, we would expect older parents in the lowest educational group to require more help at each age than those with higher levels of education.

People with higher education experience better health, and suffer health decrements at a later age, than people with lower education. They also have better resources to purchase help and may, thus, avoid having to receive help from children. This suggests the hypothesis that the response of adult children to parents' functional losses is mediated by the children's perceptions of the parents' ability to purchase help. *Thus, perceived need could be a key determinant of the flow of supports from child to parent.*

Whether age, gender, marital status and education remain as key correlates of help received by parents from children in a multivariate analysis, where several relevant variables are statistically controlled, is an issue of concern. This issue can be addressed with data that will be presented in Chapter 4 concerning the potential impacts of shifts in population composition upon the level of intergenerational supports.

It would be unduly disruptive of the flow of thought to introduce here the methodological commentary required to present the multivariate analysis results in detail. Suffice it to say that where we analyzed help received by parents from non-coresident children, the strongest variables in the performance of the model were age and gender. (See Chapter 4 for the details.)

2.5.2. Help given to children

The relevance of perceived need is suggested again, though indirectly, when we look at data concerning help reportedly given by parents to non-coresident children. This is a topic about which relatively little academic research has been done in Canada – the supports provided by seniors to their non-coresident adult children, as reported by the seniors themselves. Thanks to the design of the 1990 GSS, we can put our review of this matter into the context of information about supports provided to children aged 15 or more by parents who are as young as age 25.

Age and gender. A distinctive age pattern (parents' age) is shown in the rates of reported help given to non-coresident children (Table 2.3 and Chart 2.4). The rate rises from the age group 25-44 up to that aged

Table 2.3. Percentage of Parents Giving Any Instrumental Help[1] to Non-Coresident Children, by Sex and Age of Parents, Canada, 1990
(Private household population with a child living outside the home)

Age	Both sexes	Female	Male
	Any level of help		
25-44	30.7	27.6	33.3
45-54	42.3	46.9	36.4
55-64	47.1	51.7	42.2
65-74	35.2	37.5	32.3
75+	17.8	14.2	22.9
25+	*37.9*	*39.9*	*35.5*
	Low level of help		
25-44	6.2	9.3*	3.7*
45-54	10.3	10.8	9.8
55-64	12.1	11.6	12.6
65-74	12.1	12.2	11.9
75+	8.6	7.5*	10.1*
25+	*10.5*	*10.8*	*10.2*
	Medium or higher levels of help		
25-44	24.5	18.3	29.6
45-54	31.9	36.1	26.6
55-64	35.0	40.2	29.6
65-74	23.1	25.2	20.5
75+	9.2	6.8	12.7
25+	*27.4*	*29.1*	*25.3*

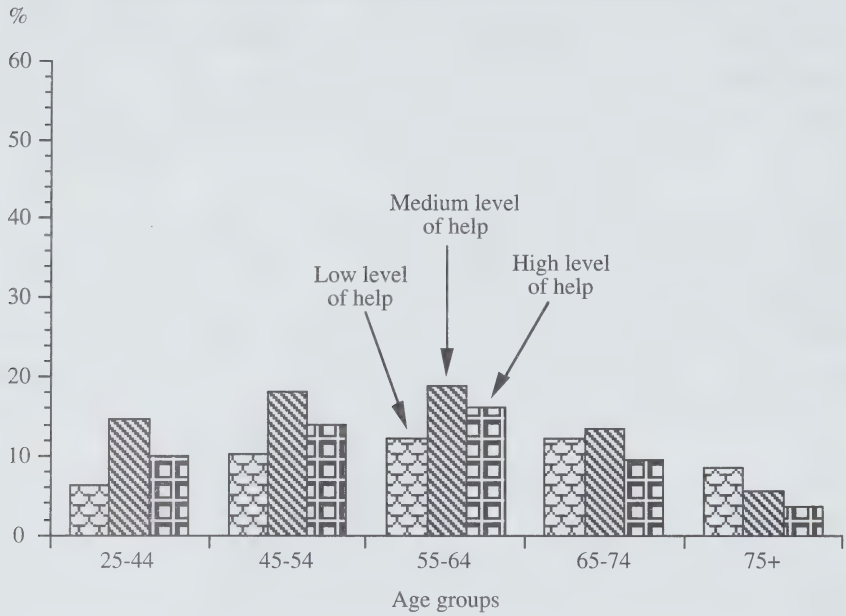
* The estimated coefficient of variation exceeds 15%.

1 Seven kinds of instrumental help measured: help with personal care, transportation, finances, child care, meal preparation, laundry and cleaning, and house and yard maintenance.

Source: Statistics Canada, General Social Survey, 1990.

Chart 2.4. Percentage of Parents Giving Any Instrumental Help[1] to Non-Coresident Children, by Selected Levels[2] and Age of Parents, Canada, 1990

(Private household population with a child living outside the home)



1 Seven kinds of instrumental help measured: help with personal care, transportation, finances, child care, meal preparation, laundry and cleaning, and house and yard maintenance.

2 Levels of help are defined in Appendix B.

Source: Statistics Canada, General Social Survey, 1990.

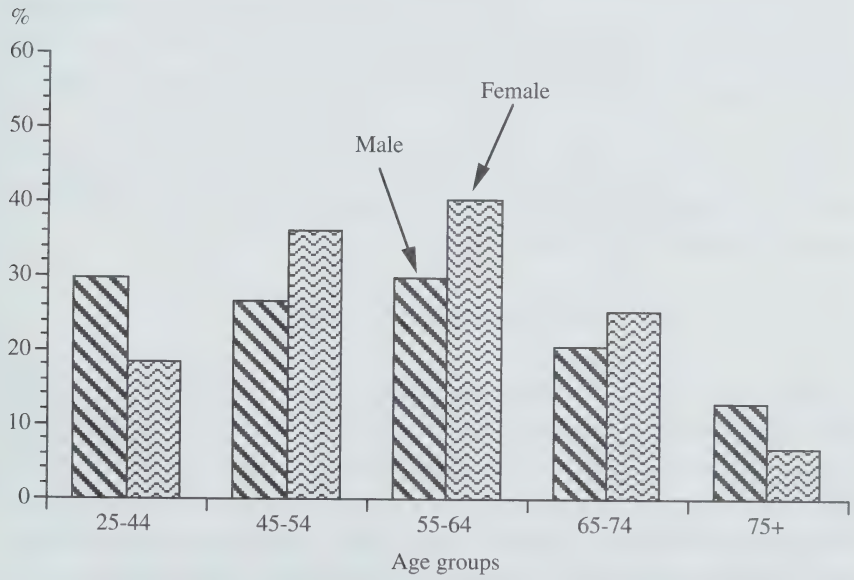
55-64, and then falls among the older age groups. The values at the end-points and peak, regarding the percentage that reported giving any measured help to non-coresident children, are as follows: 31% for age group 25-44, 47% for age group 55-64 and 18% for age group 75 and over. We see a similar profile, but with lower numbers, when we consider only the Medium or High levels of help given to non-coresident children.

There is a distinct pattern of association between parental assistance and gender. Men between the ages of 25 and 44, and those 75 years of age and older, were more likely than women to provide some type of instrumental help to their non-coresident children. In contrast, women

between 45 and 74 reported higher rates of helping non-coresident children than did their male counterparts. The pattern is seen again when we consider Medium or higher levels of help (Chart 2.5).

The fathers aged 25 to 44 years old reported a rate of helping non-coresident children that was five percentage points higher than did mothers in that same age group – 33% and 28% respectively (Table 2.3). At the other end of the age spectrum, men again reported a higher level of helping non-coresident children than women, by almost 10 percentage points – 23% and 14% respectively. In contrast, for the three age groups from 45 to 74, mothers reported higher levels of instrumental help to their non-coresident children, from six to 11 percentage points, more than fathers (Table 2.3).

Chart 2.5. Percentage of Parents Giving Medium or Higher[1] Levels of Help to Non-Coresident Children, by Sex and Age of Parents, Canada, 1990
(Private household population with a child living outside the home)



1 Levels of help are defined in Appendix B.
Source: Statistics Canada, General Social Survey, 1990.

Marriage breakdown and subsequent loss of custody of children by men could be significant factors in accounting for the gender difference just noted. The loss of custody of children means that younger divorced men would have much greater exposure to non-coresident children than their former wives, who would still be residing with the children.

In addition, at the youngest and oldest age groups monetary and other wealth offerings to children may be relatively important. For such offerings, Canadian men would have an advantage over their female counterparts. In the middle-aged groups of parents, providing assistance in areas such as help with child care and other unpaid productive work may be much more prevalent than wealth transfers. For help with unpaid work, mothers would have the advantage over fathers. It might be expected that the older female respondents are helping their non-coresident children by "babysitting" their grandchildren while their own children are at work or otherwise occupied.

The peak age of helping non-coresident children is also worthy of comment. In the 55-64 age group 52% of mothers and 42% of fathers reported providing some measured help to non-coresident children. These are parental ages when the children are most likely to be adults engaged in bringing up their own young families. They would need the kinds of support at which mothers are much more skilled than fathers.

As was the case with help received by parents, some relevant multivariate analysis has been done. Again the dominant variable in the performance of the model is age.

2.6. Concluding Comment

In summary, *these Canadian GSS data, like the American data cited above, indicate the relevance of perceived need as a factor helping to explain the level of flow of intergenerational supports.* To be sure, the indication is entirely indirect, and our interpretations of the data patterns are subject to pitfalls. However, the 'story' told by the American and the Canadian data seems coherent regarding the proposition that for the familial exchanges a 'perceived-need variable' is operating among the relevant factors.

A key policy-relevant implication of this discussion is that, in some contexts, one generation can be motivated to make sacrifices to help other generations for reasons that go beyond support for the 'investment concept' of intergenerational equity. Some have called these reasons "altruism". We will argue in the closing chapter that what is being called "altruism" can legitimately be interpreted, as well, as a conception of "equity" or fairness.

This conception is different from the one that is dominant in policy analysis and academic debates concerning the achievement of intergenerational equity. Thus when familial exchanges are included in the attempt to evaluate intergenerational equity, the 'investment' concept of equity might not be as dominant as the policy analysis and academic debates would suggest.

Chapter 3 – Private Exchanges of Parent-Child Supports and Comprehensive Generational Accounting

3.1. Introduction

To date generational accounting has been limited mostly to dealing with lifetime flows of taxes paid and of benefits obtained from government programs. Typically, these lifetime flows are computed for sets of cohorts, who are regarded as the generations. For each generation a lifetime benefit-to-tax ratio can be computed. Usually, the computations show that the cohorts who form the senior population today or in the near future are much better off, in terms of the benefit-to-tax ratio, than those who will be the seniors near and beyond the second decade of the next century. (For related discussion see Longman 1987, Thomson 1989, Good 1995.)

The generational accounting practised so far may not have been adequately comprehensive, however. There are two respects in which comprehensiveness has been inadequate. The range of benefits received and taxes paid may have been too narrow (for related discussion see Helliwell 1998 and Marshall 1997). Secondly, private intergenerational flows of services and resources of various kinds have not been brought into the accounting calculations (for related discussion see Helliwell 1998, Osberg 1998, McDaniel 1997). These omissions raise the question about whether the widely publicized conclusions of the generational accounting work done so far might be quite different if more comprehensive approaches had been taken.

The answer to this question cannot be obtained with assurance without redoing the generational accounts using the more comprehensive approaches (for related work see Wolfson *et al.* 1998). However, there are indications of a potential for change in the publicized conclusions cited above. Specifically, as we will show below, the indications are that in the *private* exchanges of supports, involving a sequence of two parent-child generations, the children fare much better than the parents.

If these indications are correct, it does *not* imply that for each of these two generations the total receptions-to-outlays ratio will be different from the benefits-to-tax ratio. The latter is computed solely in terms of benefits received from government programs. The former would cover all receptions of benefits via intergenerational transfers irrespective of source, private or public. The total receptions-to-outlays ratio would also include all outlays of money and other resources provided to support other generations.

However, the conclusion *raises a caution flag* concerning the image of intergenerational inequity conveyed when the benefits-to-tax ratio only is computed.

The relevance of more comprehensive generational accounting is suggested in the work of the former Economic Council of Canada, in its landmark Annual Review entitled "Legacies". The Council stated that "much of the responsibility rests with individuals and firms . . . in helping to ensure that our overall bequest to the next generation is adequate" (Economic Council of Canada, 1989).

3.2. Purpose

Using GSS data about services provided by parents to children, and vice versa, this chapter will address the following question: *When we study intra-familial exchanges of supports, how strong are the indications that a parental generation in Canada receives more from the corresponding child generation (their offspring) than they give to latter generation?* This question assumes a period of observation that covers the life courses of the two generations.

The answer to the question just cited does not allow us to compute new generational accounts. This is true for at least two reasons. Parent-child exchanges that are limited to a single pair of generations (as happens with the data presented below) do not by any means exhaust the full scope of intergenerational exchanges. For example, for a given generation, we need to consider the transfers that it makes not only 'backward' to its parents, but also those made 'forward' to its children. (We return to this important issue in the final chapter.) Second, as already

noted, we need to consider a sequence of generations when each generation has become practically extinct (that is, all the members of the generation have died).

In spite of these limitations, a negative answer to the question that has been stated increases the appropriateness of raising the caution flag cited above. Furthermore, the question has major relevance in another area of the debates concerning intergenerational equity. This is the area where it is alleged that within a given period "the old" are getting too much and "the young" are getting too little from government programs (for related discussions see Daniels 1989, Quadagno 1989, and Marshall 1997).

In proposing to apply GSS data to the question at the outset, we must acknowledge a major limitation of this and all other sources of cross-sectional data. Real cohort life courses cannot be traced from these data. Hence, the data do not allow us to compute lifetime benefits-to-outlays ratios for any real set of parents (or their children). Moreover, the data cover only a portion of the spectrum of relevant kinds of supports. As a result, we will by necessity be 'stretching the data' with chains of fault-prone reasoning and generalization.

Nevertheless, an effort will be made to identify the conclusion to which a preponderance of the indirect evidence points. The issues involved are far too important to simply refuse to make what we can of the available data. Moreover, the elaborate simulations of the generational accountants are also subject to criticism for 'stretching the data' with chains of fault-prone reasoning.

3.3. Relevant Literature

Proper analysis requires data that cover the lifetimes of generations. Such longitudinal data do not exist. Consequently, analysts will, for a long time, find it necessary to simulate patterns for a generation's lifetime by using cross-sectional data supported by assumptions. The cross-sectional data have another shortcoming. These data tend to cover only a part of the wide range of relevant kinds of supports.[1]

Hence, it should come as no surprise to learn that the literature contains very few efforts to build a case concerning the main patterns and the overall intergenerational balance of private flows of supports, at least in the perspective of the lifetimes of generations. We have found just two reviews of research that address this subject directly. Cantor and Hirshorn (1989) states that "recent research involving younger, more affluent elderly . . . suggests that such elderly may actually give [to their children] more than they receive in return" (Cantor and Hirshorn 1989, p. 43). (It is not clear, though, whether this remark is made concerning support flows over a generational *lifetime.*)

Marshall (1997, pp. 39-40) cites the results of a study by Kronebusch and Schelsinger (1994) as follows: "an examination of private, non-governmental exchanges shows [that] the old give more to the young than they receive from the young." The study by Kronebusch and Schelsinger (1994) used data from a 1990 sample that was representative of the U.S.A. population. The authors' analysis included estimates of market values for instrumental supports exchanged between parents and children. Marshall (1997) summarises the result as follows: "The flow of private sector assistance is very large, more than double the magnitude of public transfers in the United States." (For related discussion see Osberg 1998.)

3.4. Hypotheses About the Balance of Parent-Child Flows of Supports Based on 'Mental Simulations' that Use GSS Data

Let us turn to the task of assembling and interpreting some indirectly pertinent GSS data. In doing so, we assume that our 'mental simulation' of lifetime patterns based on cross-sectional data can be accepted in the absence of a better alternative.

The GSS data deal with instrumental supports exchanged between the parents and their children. Instrumental supports are services that help people complete desired activities of living that are recurrent (e.g., preparing meals). They exclude the major areas of emotional supports, advice and the transfer of information and knowledge. The 1990 General

Social Survey has good coverage of important instrumental supports. (The pertinent items have already been listed in the notes to Tables discussed in Chapter 2.)

These instrumental supports represent indirect transfers of forms of wealth. The lack of monetary valuations in the data presented below does not imply that services of trivial aggregate dollar value are involved. Jackson's (1996) work in the valuation of unpaid work based upon time use data leaves no doubt that we are discussing below marketable services of enormous aggregate dollar value.

Before proceeding to the main lines of the argument, let us explain why the GSS provides us with a basis to formulate hypotheses regarding the pattern of flows of parent-child support over the life course of a cohort of parents. The major *kinds* of support needed by parents change systematically over the life course. The nature of these changes is unlikely to be altered greatly from one cohort to the next.

For example, a cohort of parents has major responsibilities concerning rearing their children in the 'younger' adult phase of the life course. If they are employed, they often have unusual pressures on their time budgets. Their older children and parents, who live near to them, can provide substantial relief from those pressures.

In the 'middle' years of the life course, the typical cohort would have an increased prevalence of persons with special needs connected with marriage breakdown. In those years, a growing percentage of the members of the cohort possess parents to whom they have begun to give substantial levels of support. This support can have implications for their requirements concerning free time or financial resources.

As the average age of the cohort enters the principal years of retirement from paid employment, declining access to employment income and growing incidence of functional deficits often promote another set of needs for support. These needs are intensified when advanced age is reached. In addition there are new needs connected with losses of key members of social networks.

The preceding paragraphs serve to suggest a major hypothesis. There are distinct shifts in the mix of prevalent *needs* for support as a cohort ages toward its extinction. We suggest the additional hypothesis that the pattern of the shifts is fairly stable across multiple cohorts in our society.

These observations are only theoretical speculations. The speculations are designed to create a basis for the formulation of hypotheses about the patterns of children's help to their parents over the life course. Although the *hypotheses* will be presented within the context of GSS data, the data provide no sort of test of the hypotheses. The hypotheses need to be tested with longitudinal data for real cohorts.

It will be decades before suitable data of this kind become available. Therefore, there is some utility in pursuing the development of these hypotheses, even if the related empirical materials are cross-sectional. (See Hareven 1996 for related discussions about life-course patterns of support, where the discussions draw on intensive interviewing of very small samples.)

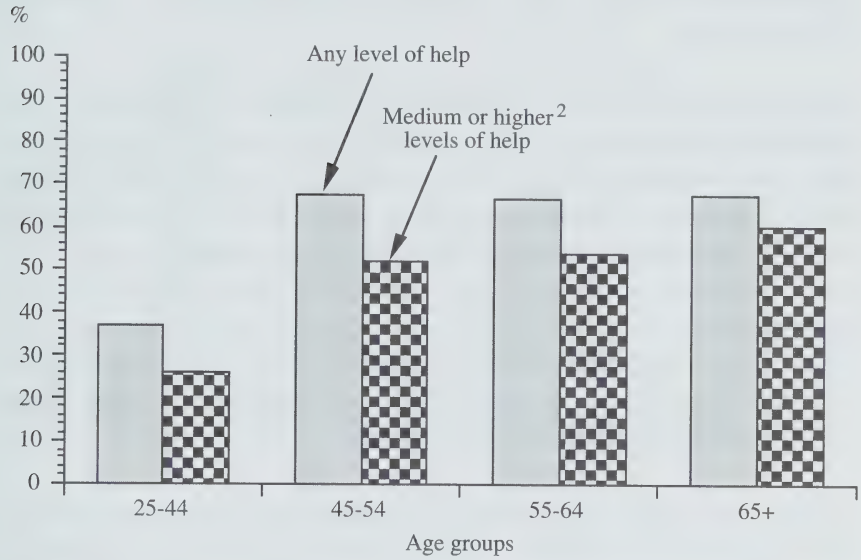
3.4.1. The life-course phase when coresidence of parent and child is the norm

In the phase of the parents' life courses where they are young adults, supports flowing from children to parents involve primarily coresident children. The volume of that support is probably modest, regarding instrumental supports. Chart 3.1 shows that the rate of receiving help from coresident children is lowest for the youngest (25-44) of the five age groups of parents.

Of course, over that phase of the parental life course, parents use a major portion of their time budgets to provide supports to their children. It is not possible to prepare a similar chart based upon children's reports of help received from coresident parents. There are too few members of the GSS sample who are adult children residing with a parent. However, it is telling that for children between the ages of 25 and 44, 84% reported receiving some instrumental help from coresident parents.

Chart 3.1. Percentage of Parents Receiving Instrumental Help[1] from Coresident Children, by Level of Help and Age of Parents, Canada, 1990

(For parents with a child in their home)



1 Three kinds of instrumental help measured: meal preparation, laundry and cleaning, and house and yard maintenance.

2 Levels of help are defined in Appendix B.

In our analysis, 80% of those children are rated as receiving Medium or higher levels of parental help. Without doubt, the corresponding figures for younger ages of children would be well above 90%.

A similar chart based on children's reports of help received from coresident parents cannot be prepared. This is because there are too few members of the GSS sample that are children residing with a parent at the older ages of the children. However, it is telling that in the 25-44 age-group of children, 84% reported receiving some instrumental help from coresident parents. Also, 80% are rated, in our analysis, as receiving Medium or High levels of parental help. Without doubt, the corresponding figures for younger ages of children would be well above 90%.

In short, at phases of the life course where coresidence of children and parents is high, there is, as is well known, an enormous imbalance between the supports flowing from parents to children and those flowing in the opposite direction. The imbalance overwhelmingly is in the favour of the children.

As is well known, in many families, the parents are delivering to the children far more than routine accommodation and physical nurturing. They are gradually moulding those children into productive citizens. In other words, the parents are undertaking the fundamental job of helping to reproduce society as we know it. The aggregate dollar value of these parental services, if they are valued at current market rates for comparable services (see Jackson 1996), ought to be very large. It is likely as impressive as the large figure shown for government income transfers to seniors, although this is only a hypothesis (for related discussion see Marshal 1997, pp. 39-40).

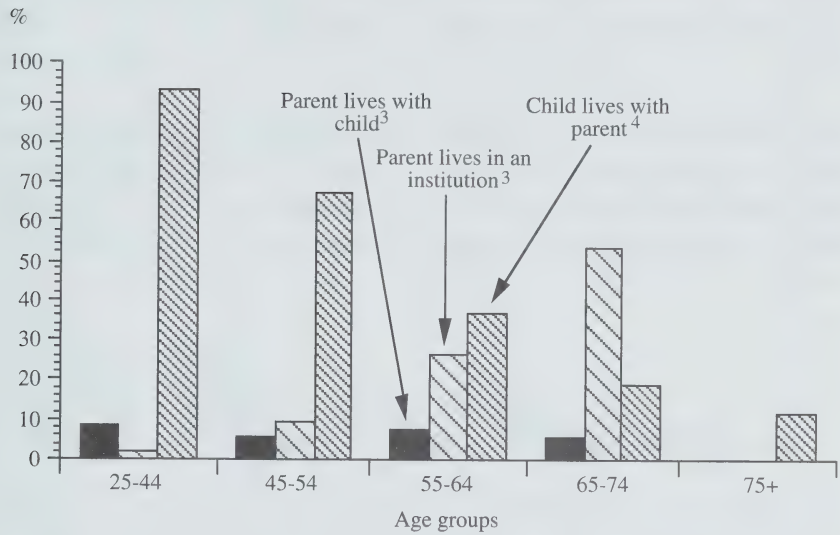
In their adult years, the children receiving these parental services do not return to their parents, through private channels, supports with similar levels of intensity and value. Thus, generational accounts that deal only with the *private* flows of supports might show that the children do receive many more benefits than the parents.

Coresident children and parents are only a part of the story of intergenerational exchanges of supports over the life course. It has already been pointed out that once the generation of children reaches an average age above 25, their rate of coresidence with parents drops sharply (see Chart 3.2). Let us turn, then, to the exchanges involving non-coresident parents and children.

3.4.2. Parent-child exchanges with non-coresidence

The flow of supports from non-coresident children to parents begins to reach substantial levels when the parents are in the early senior years, and the children are close to or have gone beyond age 40. By this time the parents are in their middle or high 60s (see Chart 3.3). When some

Chart 3.2. Coresidence and Institutional Residence of Parents[1] and Children,[2] by Age, Canada, 1990
(Private household population)

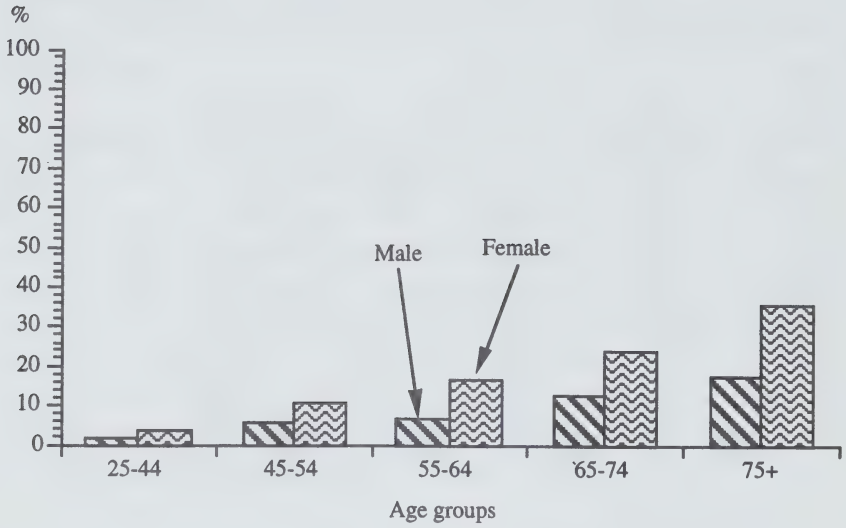


1 For children with a parent alive.
2 For parents with a child alive.
3 The respondent is the child.
4 The respondent is the parent.
Source: Statistics Canada, General Social Survey, 1990.

parents reach their middle 70s, the levels of help received from *certain* of their children begin to approach those that the children experienced from their parents when the children were very young.

However, excepting a small minority of the children (the widely studied care givers to the frail elderly), the intensity and scale of caring does not match what they received from their parents when they were very young. Note (Chart 3.2) the sharply rising proportion of children who reported that their parents resided in institutions, as the average age of the child went above 55. The staffs of the institutions where parents of advanced age (mostly women) reside provide a substantial part of the support delivered to such parents.

Chart 3.3. Percentage of Parents Receiving Medium or Higher[1] Levels of Help from Non-Coresident Children, by Sex and Age of Parents, Canada, 1990
(Private household population with a child living outside the home)



1 Levels of help are defined in Appendix B.
Source: Statistics Canada, General Social Survey, 1990.

Note, also, the substantial difference between older men and older women in the rate of reporting help received from children (see Chart 3.3). The older men are mostly married. Their female counterparts have a much higher prevalence of widowed persons.

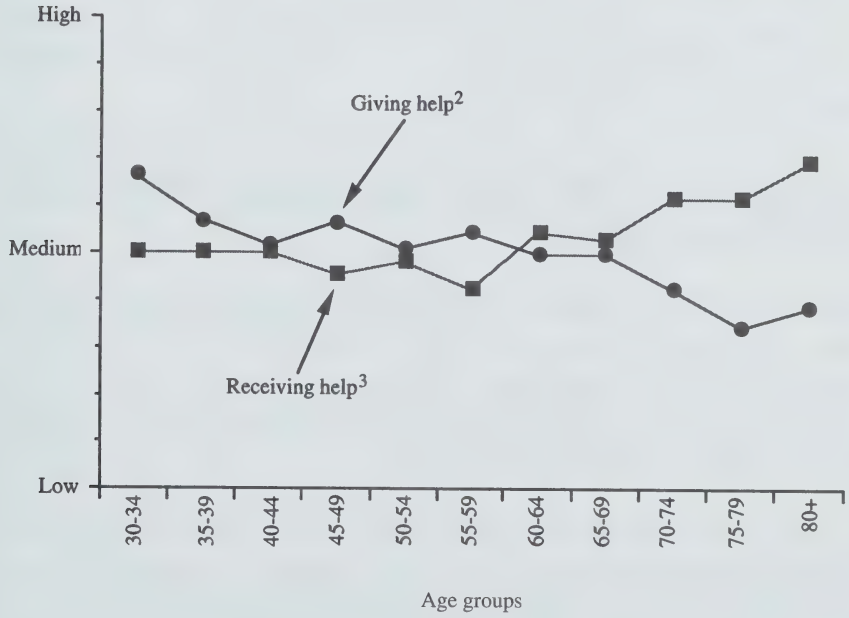
While the children's help to non-coresident parents starts its climb during the middle ages of the children, the parental help to children remains substantial. As Charts 2.4 and 2.5 showed, the rate of parental help to non-coresident children rises from the phase where the parents are young adults (25-44) to that when they are in their middle ages (55-64). As the parents age into the more senior years, their rate of giving help to non-coresident children begins to decline markedly. This rate reaches very low levels among parents aged 75 or more.

In short, for a very short portion of the parental life course, a minority of parents receives from their children the kind of 'intensive care' that

most parents provide to their children while the children are maturing toward young adulthood. For the remainder of the parental life course, substantial levels of help are received from children; but on a scale far below that provided by the parents while the children were being reared into adulthood.

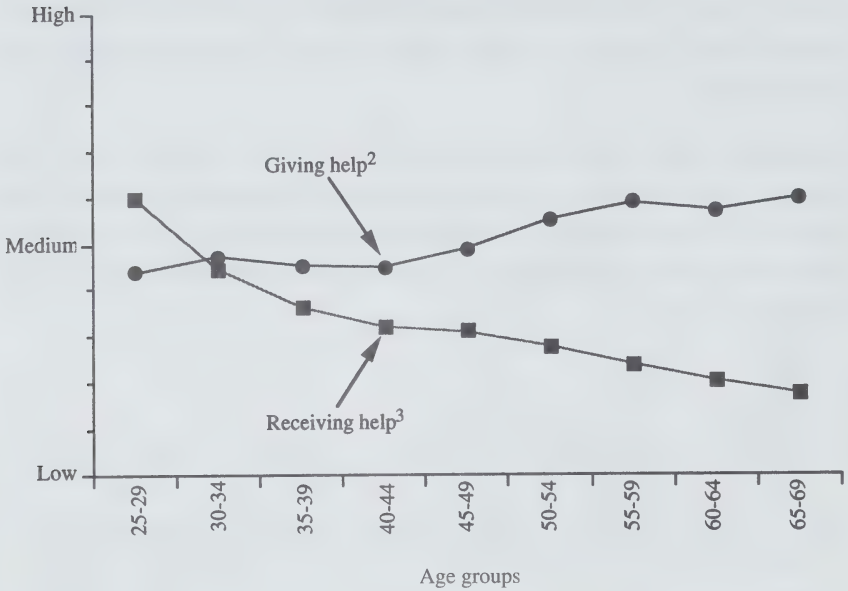
Limiting the data to the situation of non-coresidence of parent and child, we can make an effort to achieve a quantitative portrayal of the relative levels of flows of instrumental supports between parents and children over a broad range of age groups.[2] The results of this effort are shown in Charts 3.4 and 3.5.

Chart 3.4. Scale Scores[1] for Level of Giving and Receiving Instrumental Help to and from Non-Coresident Children, by Age of Parents, Canada, 1990



1 The scaling technique is described in the text.
2 Includes only those who gave any help.
3 Includes only those who received any help.
Source: Statistics Canada, General Social Survey, 1990.

Chart 3.5. Scale Scores[1] for Level of Giving and Receiving Instrumental Help to and from Non-Coresident Parent, by Age of Children, Canada, 1990



1 The scaling technique is described in the text.
2 Includes only those who gave any help.
3 Includes only those who received any help.
Source: Statistics Canada, General Social Survey, 1990.

3.4.3. Age pattern of the overall balance of parent-child exchanges of instrumental supports

Chart 3.4 shows age patterns of rates of giving help to, and of receiving from, children. The reports of subsets of parents are the basis of this chart. For the reception of help, the data are limited to those who said they received any help. For the provision of help, the data are limited to those who said they gave any help.[3]

To assign a value for each age group, the Low, Medium and High levels of giving or receiving help (which are explained in Appendix B) are scored as 1, 2 and 3 respectively. These ranks are then weighted by the proportion of the age group that falls at each level. The sum of the weighted ranks is a rating of the intensity of giving or helping.

Chart 3.5 shows analogous data from the children's perspective. That is, the reports are for help given to and received from parents. This chart also limits the observations to people who reported receiving or giving help.

In each chart, the phase of building up children's obligations for reciprocal services, arising from parental support received, is shown by the set of points where the curve for help flowing to children lies above that for help flowing to parents. The phase of discharging those obligations is suggested by the set of points where the curve for help flowing to parents lies above that for help flowing to children.[4]

The purpose of displaying these two charts is to allow us to imagine, through inspection of the data patterns, what the life-course pattern might be. These are the patterns of building and then eventually discharging some or all of children's obligations to provide reciprocal services to their parents. (In Chapter 5, we will acknowledge that some entirely unknown portion of the discharge of those obligations takes place in services provided by the children to their offspring, the parents' grandchildren.)

Lacking the data for true cohorts, let us make the assumption that Charts 3.4 and 3.5 represent a profile whose broad features would be shown by two *real* cohorts of Canadians. Chart 3.4 represents a cohort of parents reporting on help given to and received from their children. Chart 3.5 represents a cohort of children reporting on help given to and received from their parents.

The parents' reports suggest the hypothesis that the curve for giving instrumental help to children, and that for receiving such help from the children, approach similar levels when the parents are between ages 40 and 70 (Chart 3.4).[5]

The parents become net recipients of help in their middle to late 60s, after which the gap between the two curves widens progressively. During those later years of life, most children, who still have a living parent, intensify the process of discharging their obligations for

reciprocal services. These obligations had been built up when the children were very young. (We note again for emphasis that during the children's young adulthood, they would have begun the discharge of their obligations partly through caring for their own offspring, the parents' grandchildren.)

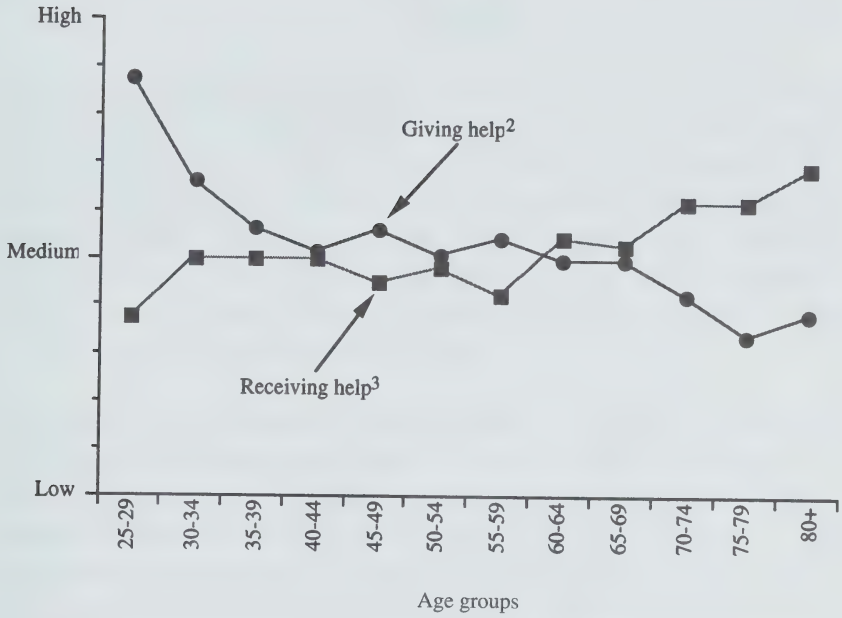
The ages shown at the bottom of Chart 3.4 are those of the parents. In moving over to Chart 3.5, it is helpful to synchronize the two sets of ages, since those in Chart 3.5 are for the children. The lowest age group on the children's chart (3.5) is 25-29. A group of children of that age would have parents whose age distribution should have its modal value in the 50s (here we assume that the mean age at first birth is about 25).

According to Chart 3.4, the parental age distribution would be heavily concentrated near age 60 when the curves for giving and receiving cross, and the children become the "net givers". Thus the two charts are not too far in signalling the parental ages where the children's current helping of parents (for instrumental tasks) tends to become larger than the parents' helping of the children, on a per person basis. (For related discussion see Chappell 1992, and Hirdes and Strain 1995.)

3.5. Conclusion

Chart 3.6 is an extension of Chart 3.4. It is designed to include a stylized representation (model) of what the pattern might be like at the younger ages, with the inclusion of coresident parents and children. Chart 3.6 is a way of putting the findings and the foregoing hypotheses together so as to include (as a model) the huge volume of support provided by parents to their very young children. The chart suggests the following hypothesis concerning the balance of private intergenerational support in a life-course perspective. *Over the life course, private exchange of supports between parents and children is not balanced. It heavily favours the children.* Policy implications of this hypothesis are discussed in Chapter 5.

Chart 3.6. Model of the Age Patterns[1] for Level of Giving and Receiving Instrumental Help to and from Children, by Age of Parents, Canada, 1990



1 This chart is the same as Chart 3.4, except that synthetic data are shown for those aged 25-29, in order to provide a model of the levels when the parents' children are very young.
2 Includes only those who gave any help.
3 Includes only those who received any help.
Source: Based on the General Social Survey, 1990.

Chapter 4 – Implications of Shifts in Population Composition Over a Sequence of Generations

4.1. Purpose

By introducing familial exchanges into measurement intergenerational flows of support, we allow a new set of determinants of those supports to become relevant to the achievement of intergenerational equity. These determinants include aspects of the composition and distribution of population that tend to be ignored when measurement is limited to government programs (see Osberg 1998). These aspects include the types of social network in which persons are embedded, cultural background and socio-economic status.

If a sequence of generations has substantial variation in such features of population composition and distribution, there will tend to be corresponding variation in intergenerational flows of supports. The latter kind of variation will arise for reasons that have no links to issues concerning intergenerational equity. As a result, it may be very difficult to estimate what benefits any generation ought to receive based on what it had contributed toward the maintenance of programs of intergenerational support.

In order to overcome this difficulty, it is necessary to break down a total for the flows of supports into components, so as to be able to isolate the specific ones that are relevant to intergenerational equity. This 'new' complexity for generational accounting would be a result of introducing private intergenerational exchanges into the scope of the debates concerning intergenerational equity. This remark leads us to the question that sets up the theme of the current chapter.

What are the indications that the levels of intergenerational exchanges of support are responsive to variables that are not pertinent to the assessment of fairness in those exchanges? Here the GSS will be used to demonstrate aspects of the composition and distribution of population that affect the volume of supports flowing from one generation to another.

The aspects of population composition and distribution that will be highlighted below are the ones cited above – the types of social network in which persons are embedded, cultural background and socio-economic status as indicated by educational attainment. Why have we selected these particular variables to receive special attention in the discussion that follows? Within the next two decades there is a potential for major change in the composition of the Canadian population with respect to these variables.

This work will be done by means of a multivariate analysis where several factors are held constant at the same time. This analysis will allow us to indicate whether or not the variables cited above are substantial factors in the flow of intergenerational supports, even after we take into account other important explanatory variables.

To establish the points that are pertinent to our main story line, it will be sufficient to deal with patterns of help received by parents from their non-coresident children. We avoid treating the data for coresident parents and children because these data omit reports by respondents about the help that they gave to persons who shared their homes.

4.2. Variables

Before proceeding with the analysis, the measurement of the variables cited above needs to be discussed. In doing so, we will go from the easiest to the most difficult variables in terms of measurement problems.

4.2.1. Education

As noted above, education is treated here as an indicator of socio-economic status. The pertinence of the latter as a factor in determining the need for social supports, as well as the capability to help others, scarcely needs elaboration here.

Educational attainment is classified into just three broad groups. These are (1) "less than secondary education", (2) "secondary and post-secondary but without university degree or diploma", and (3) "with university degree or diploma". Preliminary analyses showed that the

key threshold is that between categories (1) and (2). More detailed breakdown of the educational attainment yielded little in the way of valuable new information. Chapter 2 has already shown briefly some of the educational variations in rates of the help received by parents from non-coresident children.

4.2.2. Cultural background group

The phrase "cultural background group" means a population that contains groups that share some broad similarities regarding the region of birth (on a world scale), ethnic origin, and mother tongue.[1] "Mother tongue" means the language that was first learned and is still understood.[2]

Each of the variables just cited (region of birth, ethnic origin, and mother tongue) can be broken down into at least a few dozen categories. Thus, it is possible to define thousands of combinations of these variables. However, a few broad classifications of these combinations will serve our purpose, which is to relate aspects of *population composition* to the volume of flows of intergenerational supports.

Two meaningful, though broad, sub-populations represent Canada's 'charter groups'. Both are populations born in Canada. One is from the group of British-Isles ethnic origins. The second is of French ethnic origin, overwhelmingly Québécois. That these two categories represent sub-populations with distinct cultural backgrounds is widely accepted.

The population containing persons with one of the European ethnic origins (other than French or British Isles) is distinctive when *compared with the rest of Canada that lies outside the two charter groups defined above*. Here we create two sub-categories: born in Canada, and born outside Canada. The latter group contains mostly persons who were born in Europe. Their mother tongues would tend to be neither English nor French, and they would contain a relatively high proportion of older immigrants. The group born in Canada would be largely of English mother tongue. It would also tend to be distinctive in being more North American in terms of cultural values and behaviour patterns, though this is only a hypothesis.

The remainder of the population of Canada contains an very heterogenous collection of cultural backgrounds. However, this portion of the country's population is concentrated in a small subset of the possible cultural backgrounds. More important, for our purposes, is the fact that this sub-population has a high proportion of immigrants from third-world countries, along with their children born in Canada. It is also a population marked by lower than average income, and unusually long distances separating parents and children. Here we create again two sub-categories: born in Canada, and born outside Canada.

Among the six categories noted above are some with distinctly higher than average socio-economic status, and at least one where socio-economic status would be judged to be clearly lower than average. Some of these groups will also have distinctive distributions of proximity between parents and adult children. Both of these variables, socio-economic status and proximity, affect the potential to be engaged in the exchange of instrumental supports between parents and children.[3]

4.2.3. Social Network Type

The potential to be engaged in intergenerational exchanges of support varies from one person to another. Everyone understands that a daughter whose parents have died has no potential to give help to her parents. At the other extreme, the potential may be enormous for the daughter who shares a home with her mother. These simple ideas have an important implication of our work.

At a particular stage of the life course, the members of a generation have a distinct distribution according to their potential to be engaged in intergenerational exchanges of support. At that same stage of the life course, a series of generations could have substantially different distributions of the kind just cited. The differences among these distributions could influence the variation in the volume of intergenerational supports that are exchanged. This influence increases the difficulty of determining whether a particular generation has participated fairly in the exchange of intergenerational supports.

We have created a variable that is an indicator of the *potential* of a respondent in the GSS to be engaged in intergenerational supports. The name of this variable is "*Social Network Type*". Social Network Type takes into account the proportion of children in the respondent's social network, the frequency of contact with children, the frequency of contact with parents, marital status and living arrangement. Stone and Rosenthal (1996) describe the procedure used to create Social Network Types. (For related discussion, see Wellman and Hall 1986, Wellman, Carrington and Hall 1988, Wellman and Wellman 1997 and Wellman, Wellman and Lloyd 1997.)

For the purposes of this study, we have identified five Social Network Types. Figure 4.1 presents some features of these types. These features place a focus upon the potential of a person to be engaged in intergenerational exchanges of supports. In Figure 4.1, the potential has two levels – high and low. Involvements with children and with parents are treated separately. For each type of involvement, we consider whether it tends to have a concentration in exchanges (flows of support in *two* directions, between the parent and the child), or to contain *largely* flows of support in only one of these directions. (In this discussion, we refer to *instrumental support* only.[4])

Figure 4.1. Social Network Types Based on the Potential for Involvement in Intergenerational Exchanges, Canada, 1990
(Private household population)

		Potential for involvement with children	
		High	Low
Potential for involvement with parents	High	Network Type 2: "Multigenerational" – exchanges with parents, support of children	Network Type 3: "Parent-oriented exchange"
	Low	Network Type 4: "Pro-child support" Network Type 5: "Child-oriented exchange"	Network Type 1: "Weak exchange" – little or no intergenerational exchange

Figure 4.2 presents a profile of each of the five Social Network Types. The Social Network Types are shown in the columns of the table. The rows of Figure 4.2 refer to the following characteristics: a combination of marital status and living arrangement,[5] the proportion of children in the respondent's social network, the frequency of contact with children, the frequency of contact with parents, and the potential for involvement in exchanges with parents or with children.

Some of the rows in Figure 4.2 contain percentages. These are percentages of the total number of persons in particular Social Network Types. For example the notation "alone (42.3%)" shown in the first row of Figure 4.2 means that 42% of those in the class named "Type 1: Weak exchange" lived alone. The notation "Spouse and child: 82.8%", shown in the same row, implies that 83% of the members of "Type 2: Multigenerational" have a spouse and at least one child in their homes.

The words such as "low", "high" or "moderate", which are used in Figure 4.2, represent ratings that we have made. Tables 4.1 to 4.4 are summaries of the statistics that we have used in order to arrive at these ratings. The information contained in Figure 4.2, and in Tables 4.1 to 4.4, is summarised briefly in the following paragraphs.

Type 1. "Weak exchange" – low potential for both parent-oriented and child-oriented flows of support. Type 1 is characterized by a very low proportion of children in the network. Eighty-four per cent of these networks have no children – see Table 4.2. Most persons in Type 1 live alone (42%), or they live with a spouse only (43%). None have living arrangements that include children (Table 4.1). This suggests that persons in Social Network Type 1 are *typically* childless. Hence, the vast majority of persons in this Social Network Type have no contact with children (95% – see Table 4.3). Further, persons in this Social Network Type have little (37%) or no (61%) contact with parents (Table 4.4). This Social Network Type, therefore, indicates *very low potential for intergenerational exchange with either children or parents.* Generally, the children and parents are either absent structurally (they do not exist) or, in a very small percentage of cases, they are absent functionally (they exist but there is no contact).

Figure 4.2. Profiles of the Social Network Types

Characteristic	Type 1: Weak exchange	Type 2: Multi-generational	Type 3: Parent-oriented exchange	Type 4: Pro-child support	Type 5: Child-oriented exchange
Living arrangements	Alone (42.3%) or spouse only (43.4%)	Spouse and child (82.8%), spouse only (9.2%), child, no spouse (5.0%)	Spouse only (40.1%), parent (27.3%), alone (22.3%)	Spouse and child (80.5%) child, no spouse (17.9%)	Spouse only (68.6%), alone (27.7%)
Relative weight of children in the network	Very low	Moderate to high	Very low	Moderate to high	High to very high
Frequency of contact with children	None	High (live with child)	None	High (live with child)	Moderate to high but little coresidence
Frequency of contact with parents	Little (39.1%) or none (60.9%)	All moderate to high but they do not live with parent	All moderate to high (27.3% live with parent)	Little (44%) or no contact (52.3%)	None or little contact (90.4%)
Potential for exchange	Low potential	High potential with parents and children but children are young	High re: parents, low re: children	Low re: parents, high re: children but children are young	Low re: parents, high re: children who are adults

Table 4.1. Living Arrangement Distributions[1] of Social Network Types, Canada, 1990

Social Network Type	Alone	Spouse/ partner only	Spouse/ partner and child and possibly others	Spouse/ partner and others, no child	Child and possibly others, no spouse/ partner	Parent, and possibly others, no spouse, no child	Non-relative
1. Weak exchange	42.3	43.4	0.0	6.5	0.0	0.0	7.7
2. Multigenerational	1.1	9.2	82.8	0.5	5.0	1.2	0.3
3. Parent-oriented exchange	22.3	40.1	0.0	2.9	0.0	27.3	7.4
4. Pro-child support	0.0	1.1	80.5	0.1	17.9	0.0	0.3
5. Child-oriented exchange	27.7	68.6	0.0	2.4	0.0	0.0	1.3

1 Rows should add to 100 except for rounding error.

Source: Statistics Canada, General Social Survey, 1990.

Table 4.2. Distribution of Social Network Types by Relative Number of Children[1] in the Network, Canada, 1990
(Private household population)

Social Network Type	Zero	Less than 10%	10% to 19%	20% to 49%	50% or more	Total
1. Weak exchange	84.4	3.9	5.2	4.8	1.7	100.0
2. Multigenerational	0.3	13.9	44.7	39.4	1.6	100.0
3. Parent-oriented exchange	87.5	2.9	4.8	4.2	0.6	100.0
4. Pro-child support	0.6	11.3	44.1	39.7	4.3	100.0
5. Child-oriented exchange	0.4	9.5	35.5	46.5	8.1	100.0

1 Relative number of children is the estimated proportion of the social network that is comprised of children.

Source: Statistics Canada, General Social Survey, 1990.

Type 2. "Multigenerational" – high potential for both parent-oriented and child-oriented flows of support. Social Network Type 2 has at least a moderate proportion of children in the network. Most persons in Type 2 live with a spouse and a child (83%). All have at least moderate contact with parents (although only 1% actually live with a parent). The great majority live with a child (88%), and therefore have very high contact with children. These persons are involved actively in relationships with both their parents and their children. In this sense, at least, they have a *high potential for intergenerational exchange with both children and parents.*

However, regarding the children, the potential is primarily for flows of support from the parent to the child. This speculation is based upon the fact that children in these households are likely, on the whole, to be relatively young.

Type 3. "Parent-oriented" – high potential for parent-oriented exchanges and low potential for child-oriented ones. Social Network Type 3 has a very low proportion of children in the network (88% have

Table 4.3. Distribution[1] of Social Network Types, by Frequency of Contact with Children, Canada, 1990

Social Network Type	No contact	Phones occasionally	Sees occasionally or phones monthly	Sees monthly or phones weekly	Sees weekly	Sees daily or phones daily	Lives with child
1. Weak exchange	94.9	1.9	3.2	0.0	0.0	0.0	0.0
2. Multigenerational	0.0	0.0	0.0	2.5	4.6	5.0	87.8
3. Parent-oriented exchange	96.0	0.4	2.7	0.9	0.0	0.0	0.0
4. Pro-child support	0.0	0.0	0.0	0.0	0.1	1.4	98.5
5. Child-oriented exchange	0.0	0.0	9.7	31.2	30.9	28.1	0.0

1 Rows should add to 100 except for rounding error.

Source: Statistics Canada, General Social Survey, 1990.

Table 4.4. Distribution[1] of Social Network Types, by Frequency of Contact with Parent, Canada, 1990

Social Network Type	No contact	Phones occasionally	Sees occasionally or phones monthly	Sees monthly or phones weekly	Sees weekly	Sees daily or phones daily	Lives with child
1. Weak exchange	60.9	1.7	37.4	0.0	0.0	0.0	0.0
2. Multigenerational	0.0	0.0	0.0	37.9	33.9	27.0	1.2
3. Parent-oriented exchange	0.0	0.0	0.0	30.9	27.3	14.5	27.3
4. Pro-child support	52.3	5.0	39.0	3.6	0.0	0.0	0.0
5. Child-oriented exchange	90.4	1.1	5.1	3.5	0.0	0.0	0.0

1 Rows should add to 100 except for rounding error.

Source: Statistics Canada, General Social Survey, 1990.

no children in their networks). Persons in Social Network Type 3 tend to live with a spouse only (40%), or with parents (27%), or alone (22%). All persons in this Social Network Type have at least moderate contact with parents. This Social Network Type is distinguished from other Social Network Types because it is the only one that includes a substantial percentage of persons living with parents. This feature results in over one-quarter of the members of Type 3 having very high contact with parents. The great majority (96%) have no contact with children (and indeed very likely have no children). Social Network Type 3 therefore represents *high potential for intergenerational exchanges with parents, but very low potential for intergenerational exchanges with children.*

Type 4. "Pro-child support" – low potential for parent-oriented exchanges and high potential for providing support to children. Social Network Type 4 has at least a moderate proportion of children in the network. Most persons in this Social Network Type live with spouse and child (81%), although it is noteworthy that 18% live with a child but have no spouse in the home (single parents). Persons in this Social Network Type have little (44%) or no (52%) contact with parents, but they have very high contact with children. Almost all (99%) live with a child. Hence, Social Network Type 4 may be characterized as denoting *very high potential for intergenerational exchanges with children and very low potential for intergenerational exchanges with parents.*

Once again, with regard to the children, the potential is primarily for flows of support from the parent to the child; that is, the parents are *providing help to their children but are receiving little help in return.* This is largely because the children are young (as indicated by coresidence).

Type 5. "Child-oriented exchange" – low potential for parent-oriented exchanges and high potential for exchanges with children. Social Network Type 5 is characterized by a high proportion of children in the network, the highest proportion of all the Social Network Types. Most persons in Social Network Type 5 live with a spouse only (69%)

or they live alone (28%). The vast majority (90%) have no contact with parents, and the remainder have low contact. Persons in this Social Network Type have at least moderate contact with children. This Social Network Type may thus be characterized as having *high potential for intergenerational exchanges with children and very low potential for exchanges with parents.* Moreover, since persons in this Social Network Type have adult children (as indicated by the absence of coresidence), there is *high potential for reciprocal exchange with the children.*

In summary, by cross-classifying the potential for child-oriented intergenerational exchanges with that for intergenerational exchanges with parents, a typology of the five Social Network Types emerges (as shown in Figure 4.1). Social Network Type 1 *("Weak exchange")* is characterized by low potential for exchanges with both parents and children. Social Network Type 2 *("Multi-generational")* is high on both dimensions, although it should be remembered that the children of persons in Social Network Type 2 are still living in their homes. Social Network Type 3 *("Parent-oriented")* is high on potential exchanges with parents, but is low on potential for exchanges with children. The potential for intergenerational exchange in Social Network Type 3 is limited to mutual exchanges with parents. Social Network Types 4 *("Pro-child support")* and 5 *("Child-oriented exchange")* are high on potential for exchanges with children, but low on potential exchanges with parents. The principal difference between these two Social Network Types is that Social Network Type 4 contains persons with young (coresident) children while Social Network Type 5 contains persons with adult (non-coresident) children. Table 4.5 shows the sample counts and the estimated population sizes of each of the Social Network Types.

4.3. Method

The brief multivariate analysis, whose results are presented below, is designed to test whether Social Network Type, cultural and educational factors make significant contributions to explanation of the rate of flow of intergenerational supports when several factors are held constant simultaneously. Thus, other important determinants of intergenerational

Table 4.5. Sizes of the Five Social Network Types, Canada, 1990
(Private household population)

Social Network Types	Sample count	Estimated population	
	(000's)	(000's)	%
1. Weak exchange	1,337	1,520	9.1
2. Multigenerational	3,025	4,823	28.9
3. Parent-oriented exchange	1,861	2,835	17.0
4. Pro-child support	2,129	4,200	25.2
5. Child-oriented exchange	3,144	3,309	19.8
Total	11,496	16,687	100.0

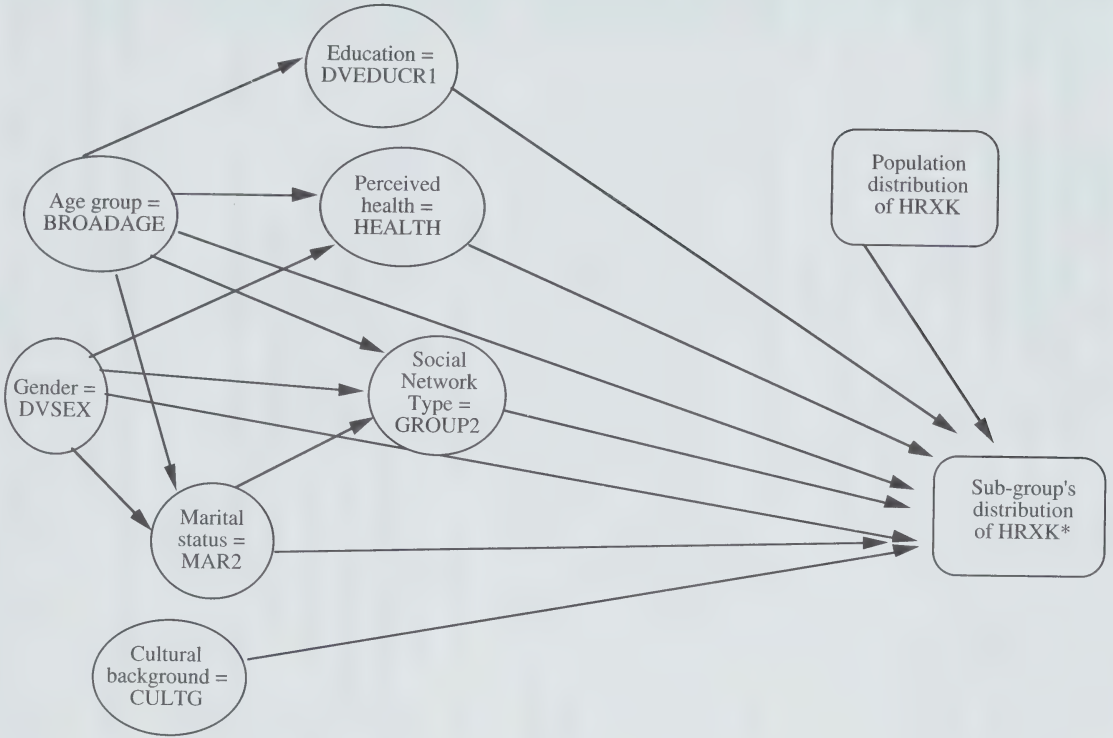
Source: Statistics Canada, General Social Survey, 1990.

supports, including some that are more important statistically than those selected for discussion, are taken into account in the analysis. Examples are age, gender and marital status. However, they are treated as control variables for the purposes of this analysis. By design, the control variables will receive little or no discussion.

A general multivariate analysis model was created, and it is represented by Figure 4.3. This model includes all the variables selected for discussion below, as well as others that are included as statistical control variables. The overall performance of the model, in terms of goodness of fit to the given data, will first be evaluated and discussed very briefly. Then the discussion will consider the results of the tests concerning individual variables cited above.[6]

Before proceeding, we offer this brief comment about the nature of the method that we have used. We have used a log-linear model and a prediction logic for the purpose of evaluating the model. (For related discussion see Hildebrand, Laing and Rosenthal 1977, and Goodman 1973b.) This is an appropriate procedure when the predicted variable (the probability of receiving help from non-coresident children) is

Figure 4.3. Influence Model for Reception of Help from a Non-Coresident Child



* Proportions at different levels of help received from a non-coresident child.

categorical and it has more than two categories. This method was also chosen because we were doing, at the same time, a related analysis in which we examined all possible combinations of values of the predictor variables. We were searching for the particular combinations that are associated with unusually high probabilities of parents receiving a high level help from non-coresident children.[7] That search needs to yield a manageable (relatively small) list of such combinations. Additional technical information about the type of modelling chosen for use here is available in an unpublished appendix (it can be obtained by writing to the authors).

4.4. Results

The model for help received from non-coresident children, by persons who had a child outside the home, achieves a modest improvement over the null-hypothesis model.[8] The level of improvement, called the "coefficient of prediction accuracy" (CPA), is 40% (out of a possible 100%) (see Goodman 1973b for the mathematical rationale of this coefficient). When the coefficient is zero, the model is not more accurate than the null-hypothesis model.

The 40% improvement over the prediction accuracy of the null hypothesis model is substantial, because the total degrees of freedom for the null hypothesis in this model are 1,234 and only 32 of these were used by the asserted model. A statistical significance level much better than 1% is indicated in the chi-square tables for this result. It is arguable, of course, that the sample design of the GSS is so complex that use of the chi-square distribution, which assumes simple random sampling, is inappropriate.

It is suggested here that one should use the chi-square table, nevertheless. It is an objective way of addressing the issue of sampling variability, assuming that the true levels of significance are not nearly as high as those suggested in the table. For example, a chi-square of over 500 with 32 degrees of freedom is 'off the scale' for the chi-square distribution – the probability of observing a chi-square that high is extremely low. With an indicated statistical significance at a level much

better than 1%, we might suggest that at least 10% statistical significance might be achieved. Even the 10% level would be enough in this sort of work. This suggests that it is likely that much more than chance generating the 40% CPA.

Table 4.6 gives the summary results from the estimation of the contributions of the predictor variables to the achievement of this 40% coefficient of prediction accuracy. The percentages shown below the first three lines of the table are the portions of the CPA that are attributable to each of the variables in the model. The method for calculating these portions takes into account the assumed network of interrelationships among the predictor variables. This network is shown in Figure 4.3. (For a commentary about this network, and the computational procedure see Appendix D.)

The purpose of these calculations is not to support a discussion of the ranks of all of the predictor variables according to their contributions to the CPA. Instead, it is to test whether the contributions of a *selected subset* of the variables can be considered to be significant. This subset consists of Social Network Type, cultural background and education. As explained earlier, the other variables have been included only as statistical control variables.

The largest contributors to the model's performance are age and gender, with 49% and 22% of the CPA respectively. By comparison, the contributions of Social Network Type, education and cultural group are, at best, modest. Social Network Type contributes 10% of the model's performance, education accounts for slightly less than 7% of the CPA, while cultural background group accounts for 3%. However, even this 3% is very unlikely to have arisen by chance according to the chi-square tables, using the eight degrees of freedom associated with its contribution to the CPA.[9]

How much we would strengthen our impression of the relevance of cultural background and education by using more detailed categories and by including the contributions of interaction terms is a subject for further analysis. We have avoided this additional analysis in the belief

Table 4.6. Performance of the Log-Linear Prediction Model for Help Received by Parents from Non-Coresident Children

Alternative models	Likelihood ratio chi-square	Approximate degrees of freedom[1]	CPA[2] %
Null hypothesis model	1390	1234	
Asserted model	830	1202	0.40

Variables in the asserted model[3]		Relative contribution to CPA %
Age	6	49.1
Sex	2	21.9
Cultural group	8	3.1
Educational attainment	4	6.9
Marital status	2	8.3
Health status	2	0.4
Social Network Type	8	10.3
Sum of relative contributions>->		100.0

1 When certain combinations of values on the predictors have no members, SPSS's calculation of degrees of freedom is subject to error, and the program issues a warning message. However, with numbers as large as those above for degrees of freedom, the approximations seem acceptable.

2 "CPA" means Coefficient of Predictive Accuracy. It is the proportional reduction of the chi-square of the null hypothesis model that is achieved by the asserted model. Expressed as a percentage, it is the percentage improvement in prediction error that is achieved by the asserted model, when the latter is compared with the null hypothesis model.

3 Model (SPSS specification):

```
LOGLINEAR HLPR_XPG (1,3) BY  DVSEX (1,2) GROUP2 (1,5) DVEDUCR1 (1,3)
CULTG (1,5)  MAR2 (1,2) BROADAGE (1,2) HEALTH (1,2)
     /DESIGN=HLPR_XPG,
          HLPR_XPG BY DVSEX,
          HLPR_XPG  BY BROADAGE,
          HLPR_XPG BY GROUP2,
          HLPR_XPG BY DVEDUCR1,
          HLPR_XPG BY CULTG,
          HLPR_XPG BY MAR2,
          HLPR_XPG BY HEALTH
```

Definitions of the categories follow:

HLPR_XPG – Help received by parents from non-coresident children:
- None
- Low or medium
- High

DVSEX – Sex:
- Male
- Female

GROUP 2 – Social Network Type: (see Chapter 4 for an explanation)
- Type 1 – Weak exchange
- Type 2 – Multigenerational
- Type 3 – Parent-oriented exchange
- Type 4 – Pro-child support
- Type 5 – Child-oriented exchange

DVEDUCR1 – Educational attainment:
- Less than secondary graduation
- Secondary graduation
- University degree or diploma

CULTG – Cultural background group:
- Canadian-born of British origin
- Canadian-born of French origin
- Other Canadian born
- Non-Canadian-born of European origin
- Non-Canadian-born of non-European origin

HEALTH – Health status:
- Good or excellent
- Fair or poor

BROADAGE – Age:
- 25-44
- 45-64
- 65-74
- 75+

MAR 2 – Marital status:
- Married
- Non-married

The sample was restricted so as to include only persons with a child aged 15 or more living outside their homes, except those where the nearest child was living more than 100 km away.

4712 weighted cases were used.

that the results in Table 4.6, along with the associated pattern of reliability coefficients, indicated by consulting the tables for the chi-square distribution, are sufficient to show the following result. *Even after we statistically hold constant the indicators for other factors, Social Network Type, cultural background and education make a significant difference in the levels of intergenerational support flows.* This result supports a general hypothesis that can be express as follows.

Once private exchanges are included in the scope of measurement of attainment of intergenerational equity, the relevant volume of supports exchanged by two adjacent generations becomes a function of distributional factors that could be altered markedly as we follow a series of generations over time. Thus, the amount and value of support provided, *per person,* by generation G+1 to generation G (let us call this "h(G+1 to G)") could be much greater than that provided by G+2 to G+1, or h(G+2 to G+1), largely because of the distributional changes from one generation to the next.

If those distributions are not stable from one generation to another, over a series of generations, generational accounting that is designed to support discussions concerning intergenerational equity needs to find a basis for breaking down the private flows of support in order isolate the portion that is relevant to issues about equity.

Chapter 5 – Implications for Social Cohesion

5.1. Purpose

It is time to focus the discussion more directly upon the meaning of the findings for major and enduring social policy concerns. Among these concerns, preserving and enhancing social cohesion looms large. Interest in intergenerational equity is motivated partly by the fear that perceived inequities threaten social cohesion (for related discussion, see Policy Research Committee 1996). Whether this fear is well founded, *perceptions* of inequity can be exploited with results that give pause to all observers (for related discussion see Quadagno 1989, Marshall, Cook and Marshall 1993, and Marshall 1997). As already noted, much of the popular discussion about intergenerational equity is based upon what we have called the 'investment concept' of intergenerational equity.

We have, however, noted a difficulty with this concept. When the supports exchanged by parents and children are analyzed, we make observations that are not well understood in terms of the 'investment concept' of equity. Some analysts arrive at an understanding of these observations by using the concept of altruism (see MacDonald 1990, Cox 1987). We argue below that it is equally legitimate to perceive that those observations are explained by adopting definitions of "equity" that are inconsistent with the 'investment approach'.

Before we develop the argument, it is worthwhile to review the questions that motivated Chapters 2 and 3 and how we have answered those questions.[1] The review of the answers will be followed by a brief discussion of the limitations or the implications of the answers. At that point, we will address the issue of whether altruism explains the features of intergenerational supports considered to be discordant with the "investment concept" of equity.

5.2. Implications of the Relevance of Need to Equity

In Chapter 2 we asked the following set of questions. *What are the dominant definitions of "equity" in the major recent debates concerning*

intergenerational equity? When we study intra-familial exchanges of supports, how strong are the indications that parents and children follow definitions of "intergenerational equity" that are similar to the dominant ones found in the major debates? When we examined patterns of intergenerational helping from the viewpoint of their associations with age, marital status and education, we found *indirect indications that the children's perception of need among their parents may be a crucial variable in the intergenerational flow of familial supports.* Turning to the help given by parents to children, we saw a complex pattern. At certain parental ages the rate of helping from fathers was greater than that from mothers, while at other ages the opposite was true. This pattern was rationalized by pointing the varying needs of the children at different stages of their life courses.

That set of findings in Chapter 2 was summarised by highlighting the *hypothesis* that perceived need is a key factor helping to explain the level of flow of intergenerational supports. This accords with a key implication of intergenerational solidarity theory – one generation can be motivated to make sacrifices to support other generations for reasons that go beyond adoption of the 'investment concept' of intergenerational equity. The finding may surprise few parents who have already spent many years bringing up their children. It will also be of little surprise to adult children that have been able to watch their parents move into advanced age. What makes it worthy of focus here is that major debates have been taking place in connection with concerns about intergenerational equity, but with little apparent attention to the implications of the existence of key divergences regarding the meaning of "intergenerational equity".

Are the sacrifices cited in the preceding paragraph merely instances of the operation of the force of altruism? If so, why are issues of intergenerational equity relevant here? In responding to these questions, we offer the following observation.

There is no definition of any term that can be considered intrinsically 'right', so that all others are 'wrong'. For any term such as "equity", it is a task of science to determine which definitions are accepted in general

usage of the word, which are dominant, etc. It is an untested hypothesis that the definition that has been dominant in policy and academic circles is the same one that is dominant among the generations about whom the debates are being held. We believe the hypothesis is false; but we understand that this belief is not logically implied by any available data. The results of the analysis of data in the preceding chapters suggest that the hypothesis might be false. *A reliable survey that asks parents and children about their conceptions of what is meant by "intergenerational equity" needs to be undertaken.* A large national survey is not needed. It would suffice to have a very well-designed sample of about 1,000 Canadian parents and children.

In the mean time, it is a reasonable hypothesis that parents and children are talking about *their* conceptions of equity when they assert that they are *responding to a sense of fairness* if they moderate support flows to take perceived need into account. Questions about what is equitable are questions about what is fair or just, based on widespread review and discussion of the work of Rawls (1971).

This issue about whether the population at large tends to use a 'different' concept of equity is not trivial. It is consequential because the relevant policy analysis is seen in media commentary to be driven by a concern to protect what is perceived to be the public interest. Who are the public but these same parents and children?

A key reservation concerning the policy implications of the foregoing remarks can be raised by those who would admit that there is important divergence among conceptions of what is meant by "intergenerational equity". The reservation can be expressed in the following terms. The kind of equity in which perceived need is a key determinant of the level of flow of benefits is not a concern of public policy, at least where intergenerational equity is concerned. Public policy in this area, it might be asserted, is concerned about *equity in schemes publicized as having the features of investment.* The public invests certain amounts of taxes to maintain certain benefit pools. Individuals who reach designated stages in their lives can make claims upon the benefit pools. In this context, it would be claimed, the principles of intergenerational equity

require that generations are similar in the relationship between the benefits received and the investments made (taxes paid). It is *only* that particular kind of support scheme that is of concern to public policies about intergenerational equity.

Unfortunately, for the position being outlined above, public policies designed to improve intergenerational equity can have impacts upon the distribution and volume of *private* flows of intergenerational supports (see Barro 1974, Lampman and Smeeding 1983). If, as the Economic Council of Canada (1989) contended, the responsibility for achieving intergenerational equity is shared between public and private parties, then we need to consider the 'spin-off' of the public programs upon private intergenerational flows. Eventually, the divergent conceptions of "intergenerational equity" may need to be confronted.

This brings up our central point – once we open the scope of debate over intergenerational equity issues to include private exchanges of supports between generations, the simple and almost uniform definition of "equity" that one can see in the academic and policy analysis literature may be no longer dominant across the whole population. The importance of this observation is enhanced when we consider that, *over the life course* of a generation, the amount/value of private (familial) exchanges of supports between generations may rival or exceed the government-sponsored ones (for related discussion, see Jackson's (1996) work on the valuation of unpaid work).

5.3. Implications of the Parent-Child Balance in Private Intergenerational Flows of Supports

Chapter 3 addressed the following question: *when we study intra-familial exchanges of supports, how strong are the indications that a parental generation in Canada receives more from the corresponding child generation (their offspring) than they give to latter generation?* In asking this question, we acknowledged that private intergenerational exchange goes well beyond what any single pair of parent and child generations may be doing to help each other. However, we stressed that a positive answer to the question should prompt the raising of

caution flags concerning uncritical acceptance of the popularized conclusion that 'seniors have been getting inequitable advantages' in terms of access to the benefits of government programs (for related discussion see Daniels 1989 and McDaniel 1997).

Answering the question stated above requires an effort to construct a chain of plausible reasoning supported by sketchy 'circumstantial evidence' drawn from the GSS data. (We have found few studies that address that question frontally, and no references to the existence of adequate datasets.) The discussion in Chapter 3 concluded that *over the life course private intergenerational exchange of supports between parents and children is not balanced. It heavily favours the children.*

As we have already said, the pertinence of this conclusion to the intergenerational equity debates seems substantial. For example, it allows some interest groups to argue that if the flows of government supports disproportionately favour the parental generation (largely through the income transfer programs targeted at seniors), that may be seen as an offset to the private streams of intergenerational support which flow heavily in favour of the children's generation. Therefore, they would contend, if the shares of seniors and children in the government budget need to be rebalanced in favour of children, *the proper justification lies not in the concepts of intergenerational equity but in the notion that the future of the society requires a greater flow of support services to the young.*

Now suppose that Professor Amartya Sen from Harvard University is correct in the assertion that some groups can be motivated to accept sacrifices to their own wellbeing, so that other groups can have enhanced benefits. He suggested (Sen 1992) that such a motivation can be successful when *the former groups can perceive themselves as agents serving a larger 'cause' or community that all groups share* (see Chapter 2 for related discussion). Then it seems plausible that seniors themselves are motivated to support the rebalancing of government budgetary expenditure to provide improved benefits to children, in spite of the consequent reduction of benefits to seniors.

Hence it is worthwhile to examine motivations that involve claims that intergenerational inequities need to be corrected through improved flow of services to children. These motivations could inadvertently support a needless assault upon the existing levels of social cohesion in the society by helping to incite conflicts among age groups (for related discussion see Kingson, Hirshorn, and Cornman 1986, and Bengtson 1993a).

5.4. Need for a Three-Generation Perspective

We need to discuss an important limitation in measurements of parent-child exchanges of supports where only one parent-child pair of generations is considered. The limitation can be articulated as a criticism to the effect that we have made the wrong comparison. According to the critique, what matters is that there is equity between what the parents (the 'second generation') received from their parents (the 'first generation') and what they give to their children (the 'third generation').

It is acknowledged that part of what the second generation gives to the third is in response to the help they received from the first generation. However, it would go against a mountain of acknowledged facts to simply ignore the help sent from the second generation back to the first. Research suggests that the primary reason Canadians believe that adult children should help their parents is that their parents took care of them when they were young (Storm, Storm, and Strike-Schurman 1985; for a review see Connidis 1989). This suggests that, in informal networks at least, the younger generation looks back to what was received from the older one when gauging equity and fairness between the generations.

What is perhaps needed is a measurement that transforms *all* the relevant kinds of help (public and private) to a common denominator of value, and then goes on to compare two value aggregates: (1) the total value of all the help *received* by the second generation over the life course from *both* the first and the third generations, and (2) the total value of all the help *given* by the second generation over the life course to both the first and the third generations. (Additional generations can be included in the calculations.) This, of course, just what the generational

accountants try to do (see Corak 1998); but, as we argued in Chapter 3, their work is not comprehensive enough (see Helliwell 1998, Osberg 1998, Wolfson et al. 1998).

Even if their work was sufficiently comprehensive, we need to keep in mind the thrust of the discussion in Chapter 2. The people who are actually carrying on the intergenerational exchanges may, largely, insist that *need,* as well as the ability to give, is an essential part of their conception of what is equitable in these exchanges. Therefore, a simple ratio of aggregate help received to aggregate help given is either a naive basis for discussing the achievement of intergenerational equity, or it ignores the actual value systems of the major stake-holders in this debate – the generations that are carrying on the exchanges of supports.

5.5. Reciprocity and Social Cohesion

5.5.1. Paradigms

The foregoing discussion has notable implications for the current policy concerns about social cohesion. To better see the implications, one needs to reflect on the concept of paradigms. How we are using this concept needs to be clarified with an example.

Suppose X is to be explained, and three classes of variables are potentially relevant: {A}, {B}, {C}. One paradigm (let us call it "Paradigm 1") prompts you to develop your understanding using variables from the sets {A} and {B} only, another prompts you to pursue your explanations using variables from the sets {A} and {C} only (let us call it "Paradigm 2"). Moreover, suppose that variable *a* in set (A) contains properties [a1, a2, a3]. One paradigm may prompt you to define *a* using only properties a1 and a2, while another prompts you to define *a* using only properties a1 and a3. Faced with the task of explaining the level of supports exchanged between parents and their children your paradigm helps you to decide what classes of possibly relevant variables you might ignore.

If that discussion is too abstract, consider this readily understood example. For many years, the complex tasks of home management have had analogues in the paid labour market; but Canadians were repeatedly told that for the purposes of policies about the labour market they should not report that they are working if all they were doing was home management. Under the prevailing paradigm about economic activity, home management was not a relevant variable.

In the area of scientific explanations, we can find that the supporters of Paradigm 1 have difficulty communicating with those that support Paradigm 2. When Paradigm 1 is dominant in current thinking about a problem, relevant causal models that arise under Paradigm 2 will not be seen at all or will be regarded as irrelevant to the supporters of the dominant paradigm (Paradigm 1). Indeed, if Paradigm 1 is sufficiently dominant we may have great confidence that we have good causal knowledge about some complex process when the knowledge is wrong because of the selectivity built into Paradigm 1.

Two sociological paradigms concerning the motivations for cooperation among people with divergent interests (e.g., parents and their children) are worthy of brief review here. One leads us to a body of thought called "exchange theory", and another points to a contrasting set of ideas called "intergenerational solidarity theory".

Exchange theory (see Dowd 1975 and 1980, Homans 1961, Wellman and Hall 1986, and Ingersoll-Dayton and Antonucci 1988) classifies an individual's relationships into three categories: *reciprocal* (equal exchange), *over-benefited* (more help is received than given) and *under-benefited* (more help is given than received). Under exchange theory, individuals are expected to maintain the relationships that are *reciprocal* or that *over-benefit* them. A principal focus of this theory is the notion that individuals tend to look for the 'return' that they will achieve from outlays of effort they make, and that those 'returns' are defined in terms of personal benefits. If one accepts exchange theory, one is quickly lead to what we have called the "investment concept" of intergenerational equity.

Intergenerational solidarity theory tends to take us down quite a different set of paths. Intergenerational solidarity theory identifies six dimensions of solidarity: *structural, associational, functional, effectual, normative, and consensual.* (For explanations see Bengtson and Schrader 1982; Bengtson and Mangen 1988; Roberts and Bengtson 1990.) This theory proposes that the various dimensions are mutually reinforcing elements of solidarity, although research has not found this to be always the case (Atkinson, Kivett and Campbell 1986; Roberts and Bengtson, 1990). Relevant to intergenerational solidarity theory is research on the relationship between the amount of helping exchanged by parents and children and feelings of closeness or attachment among them (Rossi and Rossi 1990; Crawford, Bond and Balshaw 1994). Other related research deals with filial responsibility as a key factor motivating children to help parents (Connidis 1989, p. 52). The important point, for our discussion, is that solidarity theory indicates certain features of 'social bonding' between people that can serve to motivate helping behaviour that may yield unsuitable 'returns' when viewed from the perspective of exchange theory.

5.5.2. Reciprocity

To understand the processes of this social bonding we need to take a 'long view' (assume a life-course perspective) upon intergenerational supports. Under this perspective, we need to pay attention to the value of reciprocity and the fact that the parents and the children provide help with the anticipation that they will receive reciprocal help, but often only a long time after having provided the help.[2]

Reciprocal exchanges tend to enhance the level of satisfaction with parent-child relationships (see Carruth, Tate, Moffet and Hill 1997, and Noonan, Tennstedt and Rebelsky 1996). The psychic rewards that flow from the experience of social bonding, through offering reciprocal gifts of one's time, goods, or services, promote the build-up of social cohesion at several levels – inter-personal, familial, and community.

Intergenerational solidarity depends upon the extent to which intergenerational exchange promotes a sense of involvement in

reciprocal social interaction, even when the help that is being reciprocated took place many years before the reciprocal action actually unfolds. Here the *expectation* that there will be reciprocity, when the initial helping behaviour takes place, is a key promotional factor for social cohesion. (For related discussions see Bengtson and Schrader 1982, Bengtson and Mangen 1988, and Roberts and Bengtson 1990.)

In order to explore aspects of reciprocity and their links with social cohesion, we need innovations in the GSS questionnaires. There are many ways of offering help in reciprocity for help previously received (Wellman and Hall 1986). When we consider these ways it becomes apparent that the full scope of intergenerational reciprocity goes beyond what members of a specific pair of parent-child generations are doing for each other.

The complexity of the channels for reciprocal exchange has become greater in our society due to the decline of mortality in the 20th century. It is a decline that favours lengthened survival of the extended-family unit. As a result, for example, the three-generational family is a more common feature of life these days than it did in the 19th century (Himes 1992).

An important theoretical proposition arises from the foregoing discussion. The prolonged building up of obligations over a lifetime of familial exchanges is a reflection of *sustained dependency upon others for help*, at least over major portions of the duration of that build-up. If social cohesion is strongly supported by the bonding and psychic rewards that come from discharging those obligations, then *the build-up of obligations for reciprocal giving based on dependency is a foundation of social cohesion.*

Appendix A – Introduction to the 1990 General Social Survey

The General Social Survey (GSS) is a national sample of the population aged 15 years of age and older, excluding:

1. Residents of the Yukon and Northwest Territories;
2. Full-time residents of institutions;
3. Households without telephones.

Two of the purposes of the GSS are noteworthy, with regard to our study. A major purpose is to collect data concerning social trends, in order to describe changes in Canadian society. A second purpose is to provide information that pertains to specific policy issues.

In 1990 there were 13,495 Canadians in the sample. The rate of response was 80%.

There was over-sampling of seniors. The sample weighting scheme took this over-sampling into account.

The GSS of 1990 collected information regarding a large number of subjects. These subjects include some aspects of the respondent's relationships with parents, grandparents, brothers, sisters, children and friends. With regard to children, the following topics were covered: the dates of birth of the children, the type of child care which was provided, the degree of contact with children living outside of the household, and the plans for births in the future. The survey had questions that dealt with marital history, including common-law marriage. Social support, given and received by the respondent, was also included. There were questions about satisfaction with life. Demographic and socio-economic characteristics of the respondents were also covered.

The interviewers used the telephone. The respondents were selected by means of two kinds of Random Digit Dialling. Interviewers used telephone numbers chosen at random by a computer. When an interviewer contacted a private household, he (or she) enumerated initially all the members of the household. Then the interviewer selected randomly, and interviewed, one person aged 15 or more.

In executing the sampling, each of the 10 provinces was divided into sampling strata. Generally, for each province, one stratum represented the Census Metropolitan Areas (CMAs) of the province. The other stratum included the remainder of the province. There were some exceptions to this rule. For example, Prince Edward Island, with no CMA, comprised a single stratum. As another example, Montreal and Toronto were designated as separate strata.

In the GSS of 1990, there were questions about help received from persons who shared the respondent's home . There were no questions about help given to the members of the respondent's household. These questions dealt with meal preparation, meal clean-up, house cleaning and laundry, and household maintenance (such as repairs, painting, lawn mowing, snow shovelling). The following is a typical question about these matters:

(F3a) Who helps with meal preparation in your household?
(F3b) During the past 12 months, how much of the meal preparation did ... do? Was it
[] less than 1/4 [] less than 1/2 [] 1/2 or more [] All?
(F3c) Who was PRIMARILY responsible for meal preparation in your household?

In the 1990 survey, there were many more questions about help received from persons who did not share the respondent's home. There were also questions about help given by the respondent to such persons. The questions dealt with unpaid housework (cooking, sewing, cleaning), house maintenance, transportation (e.g., driving to appointments or to shopping), child care, personal care (e.g., bathing and dressing), and financial support. Child care was an item only where the respondent was asked about help that the respondent gave to others. The following text shows a typical question.

F18. During the past 12 months, has anyone from outside your household provided you with unpaid transportation, such as driving you to an appointment or shopping?

F19a. Who provided such help?
[] Son [] Daughter [] Parent [] Brother/Sister [] Other relative
[] Friend/Neighbour [] Organization/Other (specify)

F19b. How often did they provide this help?
[] At least once a week [] At least once a month [] Less than once a month.

Appendix B – Scaling of the Degree of Instrumental Support Received, Using Data from the 1990 GSS

Technical notes that Barbara Payne provided kindly to the authors are the bases of the specifications presented in the following text. These specifications modify Payne's index, which was used in Payne and Strain (1990).

In the following discussion, we assume that the respondent is a parent receiving help from a son or a daughter. The same procedure was used when the respondent was a child receiving help from a parent. By referring specifically to a parent receiving help from a son or a daughter, we will make the explanation more clear than it would be otherwise.

With regard to the scaling of help *given* to others, the procedures used were essentially the same as those described above. Little or no additional text is needed to deal with this dimension of helping.

Scale 1 — Help from non-coresident persons

The scale development started by assembling a list of the kinds of instrumental supports that the respondent said he (or she) received. Appendix A has indicated that the kinds of supports include such items as shopping, personal care, money management, and meal preparation. *For each item*, the following procedure was performed. We rate the respondent to one of four levels of Scale 1A.

Scale 1A:

Level 3 . . . if the respondent got help from a son or a daughter at least weekly

Level 2 . . . if the respondent got help from a son or a daughter at least monthly (but not as often as weekly)

Level 1 . . . if the respondent got help from a son or a daughter less often than monthly, but at least from time to time

Level 0 . . . if the respondent got no help from a son or a daughter on the item in question.

Five kinds of instrumental supports were covered in the survey , with regard to the reception of help from non-coresident persons (see Appendix A). A respondent received five ratings, according to the procedure cited above.

Our next step is to count the number of times we rated the respondent at each of the four levels (from Level 0 to Level 3). For example, we might rate a respondent at Level 3 once, at Level 2 three times, and at Level 0 one time. This is an example of the five ratings for one respondent. *Each of these ratings refers to particular kind of instrumental support received.*

We studied the frequency of each Level of the rating scale, and we found that it was unusual for a person to receive a rating of Level 3 more than two times. Keeping this information in mind, we constructed the following scale for the frequency of help received with regard to instrumental supports.

Scale 1B:

High . . . if the person received help at Level 3 at least two times (out of the possible five times)

Medium . . . if the person *either* received help at Level 3 at least one time *or* received help at Level 2 at least two times

Low . . . if the person failed to satisfy the criteria for both High and Medium, but he or she did receive some help.

This ranking procedure was executed in such a way that a respondent was tested first to determine if he or she had a rank of High. Only if he or she failed to have that rank was he or she passed to a lower rank for further testing. This procedure is analogous to classifying people into income levels.

In constructing Scale 1B, our work diverges from that of Payne and Strain (1990). In their work, they transformed the Levels that were cited in Scale 1A as if they are measurements at the interval level of measurement. Using their measure, a person with only one kind of

help (e.g., help with meal preparation) at Level 3 will receive a higher score than one who has three kinds of help at Level 2. Such a result cannot happen under our procedure.

Scale 2 — Help from coresident persons

As noted in Appendix A, the GSS of 1990 had a separate set of questions dealing with support received from a person who resided in the same home as the respondent. In these questions, there is no measure of the frequency of helping. Instead, when a person (e.g. spouse or daughter) was identified by the respondent as providing help with a household task (e.g. meal preparation), the respondent was then asked to indicate whether the person did all the work, 1/2 or more, 1/4 or more, etc. (see Appendix A for illustrative details from the questionnaire). To create our scale, we used these levels for the *intensity of helping*, rather than a frequency measure. The following levels were assigned to respondents, for each kind of help measured.

Scale 2A:

Level 3 . . . if the person who gave the help (for example, a daughter) did at least 1/2 (including all) of the work

Level 2 . . . if the person who gave the help did at least 1/4 (but less than 1/2) of the work

Level 1 . . . if the person who gave the help did some but less than 1/4 of the work

Level 0 . . . if the pertinent person provided no help of the kind measured.

The scale just cited applies to one particular kind of help. To create a scale that summarizes information for several types of help, we used the same procedure as that described above with regard to the reception of instrumental supports from non-coresident children.

However, only three types of help within the home were used in constructing the summary scale for assistance received from coresident children. The three kinds of help are housework (cleaning, laundry, etc.), meal preparation, and house or yard maintenance and repair (see

Appendix A for related information). Thus, unlike Scale 1B, a person can have a maximum of three ratings at Level 3 (i.e., Level 3 on each of the three measures.) The ranks on the summary scale are as follows:

Scale 2B:

High . . . if the person had at least two ratings at Level 3 on Scale 2A

Medium . . . if the person had either two ratings at Level 2 or one at Level 3 on Scale 2A

Low . . . if the person failed to satisfy the criteria for both High and Medium, but he or she did receive some help.

Appendix C – Reference Tables

This appendix has two purposes. First, it presents the general patterns of association between the measure of help received from non-coresident children and some variables that were discussed in Chapter 4. The presentation is limited to those variables for which no patterns of association were shown in the earlier chapters. The pertinent variables are Cultural Background Group (see Table C.1) and Social Network Type (see Table C.2).

Education is the third variable discussed in Chapter 4. Table 2.2 in Chapter 2 displays the bi-variate association between education and the measure of help received from non-coresident children.

An additional table below presents information about the pattern of association from the perspective of multivariate analysis. Chapter 4 presents some results from a log-linear model. Table C.3 is a by-product of this model. It shows 15 combinations of categories of the predictor variables for which the estimated probability of receiving a High rank regarding help from non-coresident children exceeds 0.30. These are the combinations of categories of the predictor variables where respondents in the GSS were most vulnerable to having a High rank regarding help received from non-coresident children.

The second purpose of this appendix is to present definitions for the categories of the variables used in the log-linear model whose results are displayed partially in Chapter 4. Footnotes to the tables will contain the definitions.

No descriptive text is provided concerning the patterns shown in the tables below. The tables are presented solely to allow those readers who are educated in statistics to peruse some of the detailed information that was used to support the arguments in the book.

Table C.1. Percentage of Parents Receiving Any Measured Instrumental Help[1] from Non-Coresident Children, by Cultural Background and Age of Parents, Canada, 1990

(Private household population with a child living outside the home)

Age	Canada	British	French	Other Canadian-born European	Other Canadian-born non-European	Other non-Canadian born European	Other non-Canadian born non-European
				Any level of help			
25+	18.9	20.0	16.9	22.1	17.8	23.8	13.0
				Medium or higher levels of help			
25+	10.0	13.6	12.7	14.4	11.1	16.9	8.6*

* The estimated coefficient of variation exceeds 15%.

1 Six kinds of instrumental help measured: help with personal care, transportation, finances, meal preparation, laundry and cleaning, and house and yard maintenance.

Source: Statistics Canada, General Social Survey, 1990.

Table C.2. Percentage of Parents Receiving Any Measured Instrumental Help[1] from Non-Coresident Children, by Social Network Type, Canada, 1990

(Private household population with a child living outside the home)

	Canada	Type 1: Weak exchange	Type 2: Multi-generational	Type 3: Parent-oriented exchange	Type 4: Pro-child support	Type 5: Child-oriented exchange
Any level of help	18.9	4.2	14.7	2.3	16.0	24.7
Medium or higher levels of help	13.0	2.3	8.9	1.5	10.9	17.5

1 Six kinds of instrumental help measured: help with personal care, transportation, finances, meal preparation, laundry and cleaning, and house and yard maintenance.
Source: Statistics Canada, General Social Survey, 1990.

Table C.3. Combinations of Attributes that Indicate, When Taken Together, a Probability of 0.33 or More of Parents Receiving a High Level of Help from a Non-Coresident Child, Canada, 1990

(Sample restricted to persons with a child living outside their homes and where the child lived at most 10 kilometers away)

Gender	Age	Marital status	Education	Cultural background	Proximity to reference child	Family size index[1]	Perceived health	Probability
Female	75+	Non-married	Less than secondary graduation	Non-Canadian born of European origin	At most 10 km away	Medium	Good or excellent	0.43
Female	75+	Non-married	Less than secondary graduation	Canadian born of French origin	At most 10 km away	Medium	Good or excellent	0.43
Female	75+	Non-married	Less than secondary graduation	Canadian born of British origin	At most 10 km away	Medium	Good or excellent	0.38
Female	65-74	Non-married	Less than secondary graduation	Non-Canadian born of European origin	At most 10 km away	Medium	Good or excellent	0.37
Female	75+	Non-married	Less than secondary graduation	Non-Canadian born of European origin	At most 10 km away	Small	Good or excellent	0.37
Female	65-74	Non-married	Less than secondary graduation	Canadian born of French origin	At most 10 km away	Medium	Good or excellent	0.36

See footnotes at end of table.

Table C.3. Combinations of Attributes that Indicate, When Taken Together, a Probability of 0.33 or More of Parents Receiving a High Level of Help from a Non-Coresident Child, Canada, 1990 – Concluded

(Sample restricted to persons with a child living outside their homes and where the child lived at most 10 kilometers away)

Gender	Age	Marital status	Education	Cultural background	Proximity to reference child	Family size index[1]	Perceived health	Probability
Female	75+	Non-married	Less than secondary graduation	Other Canadian-born	At most 10 km away	Medium	Good or excellent	0.35
Female	75+	Non-married	Less than secondary graduation	Canadian born of French origin	At most 10 km away	Small	Good or excellent	0.35
Female	75+	Non-married	Less than secondary graduation	Non-Canadian born of European origin	At most 10 km away	Large	Good or excellent	0.34
Female	75+	Non-married	Less than secondary graduation	Canadian born of French origin	At most 10 km away	Large	Good or excellent	0.34

[1] Extended family size cannot be measured precisely from GSS data. This is because only approximate figures are reported by respondents, or recorded in the database for some kind of extended family relatives, for example, siblings.

We have created an 'order of magnitude' means of family size. It is the sum of 1 for a spouse/partner when present, plus the approximate numbers reported in the GSS database or recoded for children, parents, siblings and other family members such as aunts or uncles. The levels of this variable range from zero to 25. *However, it must not be assumed that these are interval numbers. It is best to treat them as ranks according to family-size.*

Family sizes 3 through 8 hold 68% of the population represented by the GSS, as of 1990.

Source: Statistics Canada, General Social Survey, 1990.

Appendix D – Introduction to the Multivariate Analysis of Help Received by Parents from Non-Coresident Children

This appendix provides some slightly technical commentary that was omitted from Chapter 4 in order to prevent the story line from being obscured. In speaking about technical discussion here, the emphasis should be placed upon the word "slight". A far more mathematical and statistically sophisticated presentation is available from the authors.

Figure 4.3, which was presented in Chapter 4, is a non-technical presentation of the model. The text in that chapter did not help the reader to interpret the arrows used in Figure 4.3. The text in this appendix provides that help.

The model is designed to deal with questions about *population groups*, rather than about individuals. *It represents a form of multi-variate demographic analysis.* We would have used a different kind of model if our purpose had been to analyze the estimated probability that a *single respondent* in the GSS had received a particular rank on the scale concerning help received from non-coresident children. *The model is used to 'predict' the distribution of a population sub-group over three levels of help received from non-coresident children.*

The first key idea to introduce is that of the *distribution of a population sub- group over three levels of help received* . The three levels of help are None, Low or Medium, and High (see Appendix B). The distribution is the set of proportions (or percentages) for the sub-group that are in each of the three levels. (We could have used all four levels – None, Low, Medium, and High; but collapsing Low and Medium into one category causes no substantial change in the broad pattern of the results from the multivariate analysis.) This entire *distribution* is the dependent variable of the model.

This distribution is represented by the box with rounded corners at the extreme right side of Figure 4.3. Suppose, for the sake of concreteness in thinking, that the box represents the distribution of the population of Moose Jaw (Saskatchewan) with regard to three levels of help received

from non-coresident children. Above and slightly to the left of that box is the corresponding distribution of the whole population (that of Canada as a whole). An arrow goes from the latter box to the former to indicate that we can predict that the distribution of Moose Jaw's population is the same as that of Canada. *This specific prediction is the competing null hypothesis model.*

All the circles to the left of the two rounded boxes represent *additional information about Moose Jaw's population* that we wish to take into account in order to get a better prediction than that of the null hypothesis of the model. That information is demographic information. It consists of the distributions of the population of Moose Jaw with regard to the levels of several variables that are hypothesized as being relevant to explaining the pattern by which that population is distributed with regard to levels of receiving help from non-coresident children.

For example, it is a strong hypothesis that if Moose Jaw has an unusually high proportion of parents who are widows at advanced age (indexed in the model by the marital status variable) it can be expected to have to a greater than average (the average for Canada) proportion of persons getting high levels of help from their children. Keep in mind that all the circles in Figure 4.3 (representing the predictor variables of the model) pertain to attributes of Moose Jaw's *population*. They do not refer to attributes of individual GSS respondents.

The model asserts, as hypotheses, certain patterns by which the predictor variables influence the manner in which Moose Jaw's population is distributed with regard to levels of receiving help from non-coresident children. These hypotheses are represented by the arrows in Figure 4.3.

The influence of a predictor variable may be said to operate under *different degrees of constraint exerted by other variables in the model.* (This is roughly analogous to the concept of *endogenous variable* in econometrics.) The situation of no constraint is represented, in Figure 4.3, by a circle that is not reached (as indicated by the arrow heads) from any other circle on the diagram.

An example here is Cultural Background Group. Its influence upon the manner in which Moose Jaw's population is distributed with regard to levels of receiving help from non-coresident children is represented in the model by the arrow that goes from the circle for cultural background to the rounded box that stands for the distribution being predicted. Age group and gender are also unconstrained by other variables in the model.

Constraints upon the influence of a given variable may be said to exist at level one, level two, level three, etc. Education illustrates level one constraint; because only one other variable has an arrow that leads to education. The arrow going from age group to education means that the model is asserting that the influence of Moose Jaw's educational distribution upon its pattern of receiving help from non-coresident children is constrained by that of Moose Jaw's age structure. That means to say that the pattern of educational attainment in Moose Jaw depends upon the age structure of Moose Jaw's population.

A higher level of constraint is asserted, under this model, for Social Network Type. The variable has level-**three** constraints, since the model asserts that the pattern of Moose Jaw's distribution regarding Social Network Type depends upon its **gender, age and marital status** distributions.

A key point about all the constraints upon the influences of the predictors is that the contributions of the predictors to the model's coefficient of predictive accuracy should be estimated using a procedure which takes into account the hypothesized pattern of constraints among those variables. What we have in Figure 4.3 is a structure of relationships that involves several constraints among the predictor variables.

How we estimate the contribution of each variable to the general predictive accuracy of the model, while taking this structure into account, is illustrated in Table D.1. This is basically the same table as Table 4.6 in Chapter 4, except that it displays the computational formula that underlies each derived number shown in the latter table. Table D.2 shows analogous information from the model that predicts help received by children from non-coresident parents.

Table D.1. Performance of the Log-Linear Prediction Model for Help Received by Parents from Non-Coresident Children

Data information

4712	unweighted cases accepted.
0	cases rejected because of out-of-range factor values.
0	cases rejected because of missing data.
4712	weighted cases will be used in the analysis.

Factor information[1]

(The number to the right of each symbol indicates the number of categories.)

HLPR_XK	3	levels of help received from non-coresident children
DVSEX	2	classes of sex
GROUP2	5	Social Network Type
DVEDUCR1	3	levels of educational attainment
CULTG	5	broad cultural-group categories
HEALTH	2	perceived health status compared
BROADAGE	4	categories of age
MAR2	2	classes of marital status

Restrictions placed on the sample

SELECT IF (CHILDOUT GE 1).

- Selects persons with a child aged 15 or more living outside their homes.

SELECT IF (CULT GT 0).

- Omits unallocated CULT.

SELECT IF (KIDPROX2 EQ 1 OR KIDPROX2 EQ 2).

- Omits children living more than 100 km away.

SPSS command, data space, asserted model

```
LOGLINEAR HLPR_XPG (1,3) BY DVSEX (1,2) GROUP2 (1,5)
DVEDUCR1 (1,3) CULTG (1,5) MAR2 (1,2) BROADAGE (1,2)
    /DESIGN=HLPR_XPG,
        HLPR_XPG BY DVSEX,
        HLPR_XPG BY BROADAGE,
        HLPR_XPG BY GROUP2,
        HLPR_XPG BY DVEDUCR1,
        HLPR_XPG BY CULTG,
        HLPR_XPG BY MAR2
```

Table D.1. Performance of the Log-Linear Prediction Model for Help Received by Parents from Non-Coresident Children – Continued

Partial models used to partition chi-square, taking into account the hypothesized structure of influence among the predictor variables (see Figure 4.3)

(The italicized item shows the name of the variable whose contribution is measured.)

Alternative models	Likelihood ratio chi-square	Approx. degrees of freedom[2]	Absolute contribution to CPA[3]	Relative contribution to CPA
/DESIGN=*HLPR_XK*	D12=1390	1234	(Null hypothesis model)	
/DESIGN=HLPR_XK HLPR_XK BY *BROADAGE*	D15=1107	1228	283.24=D12-D15	49.1%
/DESIGN=HLPR_XK HLPR_XK BY *DVSEX*	D17=1264	1232	126.02=D12-D17	21.9%
/DESIGN=HLPR_XK HLPR_XK BY *CULTG*	D19=1372	1226	18.07=D12-D19	3.1%
/DESIGN=HLPR_XK HLPR_XK BY BROADAGE HLPR_XK BY *DVEDUCR1*	D22=1067	1224	39.68=D15-D22	6.9%
/DESIGN=HLPR_XK HLPR_XK BY BROADAGE HLPR_XK BY DVSEX	D25=987	1226		
/DESIGN=HLPR_XK HLPR_XK BY BROADAGE HLPR_XK BY DVSEX HLPR_XK BY *MAR2*	D29=940	1224	47.79=D25-D29	8.3%
/DESIGN=HLPR_XK HLPR_XK BY BROADAGE HLPR_XK BY DVSEX HLPR_XK BY *HEALTH*	D33=985	1224	2.17=D25-D33	0.4%
/DESIGN=HLPR_XK HLPR_XK BY BROADAGE HLPR_XK BY DVSEX HLPR_XK BY MAR2	D37=940	1224		
/DESIGN=HLPR_XK HLPR_XK BY BROADAGE HLPR_XK BY DVSEX HLPR_XK BY MAR2 HLPR_XK BY *GROUP2*	D42=880	1216	59.64=D37-D42	10.3%
	Sum of contributions >->		576.61	100.0%
	CPA constructed from contributions		0.41	
	Approximate chi-square of asserted model		813.39[4]	

Table D.1. Performance of the Log-Linear Prediction Model for Help Received by Parents from Non-Coresident Children – Concluded

1 Definitions of the categories follow:

	Value label
HLPR_XK	None
	Low or medium
	High
DVSEX	Male
	Female
GROUP2	Social network types: (see Chapter 4 for an explanation)
	Type 1 – Weak exchange
	Type 2 – Multigenerational
	Type 3 – Parent-oriented exchange
	Type 4 – Pro-child support
	Type 5 – Child-oriented exchange
DVEDUCR1	Less than secondary graduation
	Secondary graduation
	University degree or diploma
CULTG	Canadian-born of British origin
	Canadian-born of French origin
	Other Canadian-born
	Non-Canadian-born of European origin
	Non-Canadian-born of non-European origin
HEALTH	Good or excellent
	Fair or poor
BROADAGE	Age:
	25-44
	45-64
	65-74
	75+
MAR2	Married
	Non-married

2 When certain combinations of values on the predictors have no members, SPSS's calculation of degrees of freedom is subject to error, and the program issues a warning message. However, with numbers as large as those above for degrees of freedom, the approximations seem acceptable.

3 "CPA" means Coefficient of Predictive Accuracy. It is the proportional reduction of the chi-square of the null hypothesis model that is achieved by the asserted model. Expressed as a percentage, it is the percentage improvement in prediction error that is achieved by the asserted model, when the latter is compared with the null hypothesis model.

4 Chi-square of the null hypothesis model minus the sum of contributions.

Table D.2. Performance of the Log-Linear Prediction Model for Help Received by Children from Non-Coresident Parents

Data information

3737	unweighted cases accepted.
0	cases rejected because of out-of-range factor values.
0	cases rejected because of missing data.
3737	weighted cases will be used in the analysis.

Factor information[1]

(The number to the right of each symbol indicates the number of categories.)

HLPR_XPG	3	levels of help received from non-coresident parent
DVSEX	2	classes of sex
GROUP2	5	Social Network Type
DVEDUCR1	3	levels of educational attainment
CULTG	5	broad cultural-group categories
MAR2	2	classes of marital status
BROADAGE	2	categories of age

Restrictions placed on the sample

SELECT IF (PA_LIV EQ1 AND LOC_PAR NE 1).

- Restricts calc to cases that have a living PARENT outside the home.

SELECT IF (CULT GT 0).

- Omits unallocated CULT.

SELECT IF (PROXPAR EQ 1 OR PROXPAR EQ 2).

- Omits parents living more than 100 km away.

SELECT IF (BROADAGE EQ 1 OR BROADAGE EQ 2)

- Selects age groups 25-44 and 45-64.

SPSS command, data space, asserted model

```
LOGLINEAR HLPR_XPG (1,3) BY DVSEX (1,2) GROUP2 (1,5)
DVEDUCR1 (1,3) CULTG (1,5) MAR 2 (1,2) BROADAGE (1,2)
    /DESIGN=HLPR_XPG,
        HLPR_XPG BY DVSEX,
        HLPR_XPG BY BROADAGE,
        HLPR_XPG BY GROUP2,
        HLPR_XPG BY DVEDUCR1,
        HLPR_XPG BY CULTG,
        HLPR_XPG BY MAR2
```

Table D.2. Performance of the Log-Linear Prediction Model for Help Received by Children from Non-Coresident Parents – Concluded

Partial models used to partition chi-square, taking into account the hypothesized structure of influence among the predictor variables

(The italicized item shows the name of the variable whose contribution is measured.)

Alternative models	Likelihood ratio chi-square	Approx. degrees of freedom	Absolute contribution to CPA[2]	Relative contribution to CPA
/DESIGN=*HLPR_XPG*	766	638		
/DESIGN=HLPR_XPG HLPR_XPG BY *DVSEX*	763	636	3.38	
/DESIGN=HLPR_XPG HLPR_XPG BY *BROADAGE*	603	636	162.80	49%
/DESIGN=HLPR_XPG HLPR_XPG BY *CULTG*	748	630	17.55	5%
/DESIGN=HLPR_XPG HLPR_XPG BY BROADAGE HLPR_XPG BY *DVEDUCR1*	579	632	24.53	7%
/DESIGN=HLPR_XPG HLPR_XPG BY BROADAGE HLPR_XPG BY DVSEX	585	634		
/DESIGN=HLPR_XPG HLPR_XPG BY BROADAGE HLPR_XPG BY DVSEX HLPR_XPG BY *MAR2*	571	632	14.20	4%
/DESIGN=HLPR_XPG HLPR_XPG BY BROADAGE HLPR_XPG BY DVSEX HLPR_XPG BY *GROUP2*	473	626	112.01	33%
	Sum of contributions >->		334.47	100%
	CPA constructed from contributions		0.44	
	Approximate chi-square of asserted model		431.53	

1 Definitions of the categories are the same as in footnote 1 of Table D.1.
2 See footnote 2 of Table D.1.

The influences of interactions among the predictor variables would be shown in Figure 4.3 by curved lines that link predictor variables but have no arrow heads. This model, in its initial form, asserted as being relevant the interaction between age group and gender. This term made a negligible contribution to the model's goodness of fit, and it was omitted.

The predictive accuracy of the model is the extent to which the error of prediction in the null hypothesis model is reduced by an alternative model that takes into account the *additional information* just mentioned above. The coefficient of prediction accuracy varies between zero per cent (the alternative model is no better than the null hypothesis model) to 100%. At 50% the coefficient means that every time we use the predictive model we have a one-in-two chance of achieving a better prediction than the null hypothesis model. (For related discussion see Goodman 1973b.)

End Notes

Chapter 2

1 This means that there is scarcely great value in waiting for the 1996 GSS data to become accessible in a form that allows their immediate use for our purposes.

2 Help received from children is measured on a four-level frequency scale. The levels are None, Low, Medium and High. Some details concerning the design of the scale are presented in Appendix B.

One important property of the scale deserves to be cited here. The scale attempts to provide a general measure of helping frequency that covers a heterogeneous list of kinds of help, such as personal care and yard work. The result is that the analysis will fail to make important distinctions associated with the kinds of persons who might need or give particular types of help.

3 All citations in this book of specific figures or of data patterns based on the GSS and for which there are no supporting tables or charts are supported by tables that authors can supply to interested readers. We will avoid making case by case reminders on this point in future citations of this kind.

4 Asterisks are used within tables presented below to indicate numbers that have low levels of reliability because of small sub-sample size. Many of these numbers would not normally be published in a compendium of official statistics. Their display here arises from the reasonable idea that numbers may convey systematic and meaningful *patterns of variation* over population sub-groups even if they are individually unreliable.

Chapter 3

1 It is instructive to review the wide range of possible kinds of private intergenerational transfers shown in the work of Cremer, Kessler

and Pestieau (1992). A useful adaptation of their work in the form of a table of types of supports is presented in Table 3 of McDaniel 1997.

As we will see further on, the coverage offered by the GSS will appear, in comparison, rather narrow. Yet we appreciate the accomplishment in gathering of relevant data that the GSS represents; because the resources needed to cover the range of types of supports cited in McDaniel's (1997) Table 3 are simply not available. Moreover, any attempt at such broad coverage would probably have a time horizon of just one year.

2 We must exclude reports concerning help exchanged among persons that share the same household; because the GSS questions did not deal with help given to a coresident parent or child.

Thus, in the lowest age group, the points on the curves for giving help to children (Chart 3.4) and for receiving help from parents (Chart 3.5) should be much higher than they are when based solely on the GSS data. To correct this bias somewhat, we observed the highest score on the curve for giving help to parents in Chart 3.5 and assigned it to the first position on the curve for receiving help from parents. No correction of this kind was done for Chart 3.4 because the initial figures displayed the correct pattern, even if the value at the first position on the curve for giving help to children is too low.

3 The observations should not be limited to those who both gave and also received some help, because we would miss those who reported they gave some help to children but received none from their children.

Two major limitations of these data should be noted. First, they reflect the parents' perceptions of what they gave and received, hence our use of the word "reported". It is well known that the giver and receiver of a service may have quite different evaluations

of the quantity and utility of what was provided. Second, these data are a far cry from measures of reciprocal exchange from a life-course perspective.

4 The phrase "building up" and the word "discharge", as used here, refer to a process in which we continually subtract the aggregate value of services delivered from that of services received.

5 One source of upward bias in the curve for parents' help during ages from 40 to 60 is the fact that help with baby-sitting is added as a possible instrumental support where parents were being asked in the GSS about help they gave to non-coresident children.

Chapter 4

1 This remark implies that the variable is used to classify persons into sub-populations that are thought to be meaningful for the analysis. It should not be viewed as being a meaningful way of pointing to any individual's cultural heritage.

2 In the discussion that follows, mother tongue is not mentioned explicitly. This is because it is applicable in the definitions of only the categories that represent Canada's two 'charter groups'.

3 Theoretically, distinctions among cultural groups that pertain to value systems and traditions concerning support among family members and filial obligations are highly relevant to our analysis. The GSS does not contain data that allow one to measure such variables, however. For related discussions see Cantor, Brennan and Sainz 1994, Lee and Sung 1997, Gee and Chappell 1997, Connell and Gibson 1997, Aranda and Knight 1997, Ishii-Kuntz 1997, and Cantor and Hirshorn 1989.

On a separate point, some readers will wonder why we have simply not abandoned this variable in favour of using geographic proximity and some additional measures of socio-economic status. The reason is that these variables are endogenous to the cultural background

variable. For example, low socio-economic status is explained *in part* by cultural background. Therefore, an adequate model cannot avoid including the cultural background variable as a member of the set of exogenous factors.

4 The concept of instrumental support was defined earlier in the text. If we had included emotional support (not measured in the GSS) in the typology there would be a different set of patterns than that shown in Figure 4.1.

5 Whether a person lives with a spouse, or has another living arrangement, because of the death of the spouse or of marriage breakdown, is an important factor in the person's potential to be engaged in intergenerational exchanges of supports. Our data identify separately the persons that live with a spouse. We judged that the sample size was too small to justify separate identification of those who have been divorced, among the remainder of the sample. Only persons with either a parent alive or a child alive are included in these data.

6 There is no implicit requirement to conduct a general assessment that includes reviewing the relative importance of all variables in the model and then focussing discussion upon the most important contributors to the model's performance.

7 Log-linear modelling is a generalization of logistic regression. It is often used when the dependent variable has more than two categories and it is convenient to treat all variables in the model as discrete variables, each with a limited number of categories.

8 The null-hypothesis model asserts that all sub-groups of the population have the same distribution regarding help received from non-coresident children.

9 It is arguable that the sample design of the GSS is so complex that use of the chi-square distribution tables, which assumes simple random sampling, is inappropriate. This criticism is accepted. We

may, however, use the chi-square tables as an objective procedure of addressing the issue of sampling variability, assuming that the true levels of significance are not nearly as high as those indicated in the table.

Chapter 5

1 Chapter 4 is omitted from this discussion because it deals with a quite different and somewhat methodological issue. Its main question and finding were stated clearly in the earlier text. It is difficult to elaborate upon those findings without bringing up many technical remarks about measurement problems. However, the future changes in population composition that are assumed in that chapter will probably entail shifting mixes of need for help and changing availability of family members to provide help.

2 It should be kept in mind that reciprocity and equal exchange are not the same thing.

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